

EXHIBIT B

UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK

JOANNE HART and SANDRA )  
BUENO, on behalf of )  
themselves and all others )  
similarly situated, )  
Plaintiffs, )  
vs. ) No.1:15-CV-04804-WHP  
BHH, LLC d/b/a BELL + )  
HOWELL and VAN HAUSER, LLC, )  
Defendants. )

Videotaped Deposition of DR. PAUL W.  
BORTH, called for examination, taken pursuant  
to the Rules of the United States District Courts,  
pertaining to the taking of depositions, taken before  
Lynn A. McCauley, CSR No. 84-003268, RPR, a Certified  
Shorthand Reporter of the State of Illinois, at  
33 West Monroe Street, Suite 1100, Chicago, Illinois,  
on January 16, 2018, at 9:44 a.m.

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1 PRESENT:  
 2 BURSAR & FISHER, P.A., by  
 3 MR. YITZCHAK KOPEL AND  
 4 MR. ALEC LESLIE  
 5 888 Seventh Avenue  
 6 New York, New York 10019  
 7 646-837-7127  
 8 ykopol@bursor.com  
 9 aleslie@bursor.com  
 10 Appeared on behalf of Plaintiffs;  
 11 and  
 12 LEAHY, EISENBERG & FRAENKEL, LTD., by  
 13 MR. ROBERT OSTOJIC AND  
 14 MR. ADAM H. MC CABE  
 15 33 West Monroe Street, Suite 1100  
 16 Chicago, Illinois 60603  
 17 312-368-4554  
 18 ro@lefild.com  
 19 ahm@lefild.com  
 20 Appeared on behalf of Defendants.  
 21  
 22 ALSO PRESENT:  
 23 MR. SCOT ZIARKO, Videographer.  
 24  
 25

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1 Exhibit 11 Lack of Repellency 243 10  
 2 of Three Commercial  
 3 Ultrasonic Devices  
 4 to the German  
 5 Cockroach  
 6 Exhibit 12 Responses of 251 18  
 7 Mosquitoes and  
 8 German Cockroaches  
 9 to Ultrasound  
 10 Emitted from a  
 11 Random Ultrasonic  
 12 Generating Device  
 13 Exhibit 13 Defendants' 289 25  
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 18 Packaging and  
 19 Owner's Manual  
 20  
 21  
 22  
 23  
 24  
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 3 DR. PAUL W. BORTH  
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 6 MR. OSTOJIC 290 3  
 7 MR. KOPEL 304 6  
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 Against Three Ant  
 Species

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1 THE VIDEOGRAPHER: Good morning. We are now 09:33  
 2 on the record. 09:41  
 3 My name is Scot Ziarko. I'm the 09:41  
 4 videographer representing Veritext Legal Solutions. 09:41  
 5 Today's date is January 16, 2018. 09:41  
 6 The time is now approximately 9:44 a.m. 09:41  
 7 This deposition is being held at 09:41  
 8 33 West Monroe Street, Chicago, Illinois. 09:41  
 9 The caption of this case is Joanne 09:41  
 10 Hart versus BHH, LLC. 09:41  
 11 The name of the witness today is 09:41  
 12 Dr. Paul Borth. 09:41  
 13 Our court reporter is Lynn McCauley 09:41  
 14 also with Veritext Legal Solutions. 09:42  
 15 Will counsel please identify 09:42  
 16 yourselves for the record, and will the court 09:42  
 17 reporter please swear in the witness. 09:42  
 18 MR. KOPEL: Yitzchak Kopel, Bursor & Fisher, 09:42  
 19 representing plaintiffs in the certified classes. 09:42  
 20 With me here today is my colleague, 09:42  
 21 Alec Leslie. 09:42  
 22 MR. OSTOJIC: Robert Ostojic, O-s-t-o-j-i-c, 09:42  
 23 on behalf of the defendant, BHH, LLC, doing business 09:42  
 24 as Bell + Howell; and with me is Adam McCabe. 09:42  
 25 (WHEREUPON, the witness was

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2 (Pages 2 - 5)

1	duly sworn.)	09:42	1	A. Many years ago I was involved in a car	09:43
2	THE VIDEOGRAPHER: You may begin.	09:42	2	accident that I was the driver, and somebody sued me	09:43
3	DR. PAUL W. BORTH		3	for hitting them in the back rear end.	09:44
4	called as a witness herein, having been first duly		4	Q. Okay. And there was -- your deposition	09:44
5	sworn, was examined and testified as follows:		5	was not taken in that case?	09:44
6	EXAMINATION		6	A. No. It was settled by the insurance	09:44
7	BY MR. KOPEL:		7	company.	09:44
8	Q. Good Morning, Dr. Borth.	09:42	8	Q. Any other lawsuits to which you were a	09:44
9	A. Good morning.	09:42	9	party?	09:44
10	Q. Can you please state your name and	09:42	10	A. No.	09:44
11	address for the record.	09:42	11	Q. Have you ever been convicted of a crime?	09:44
12	A. Dr. Paul W. Borth. Address, 10255 Fox	09:42	12	A. No.	09:44
13	Trace, Zionsville, Indiana 46077.	09:42	13	Q. Before we continue, I'd like to please	09:44
14	Q. And that's your residential address;	09:42	14	discuss some ground rules for today.	09:44
15	correct?	09:42	15	You understand that you're	09:44
16	A. Yes.	09:42	16	testifying under oath today?	09:44
17	Q. Can you please state your business	09:42	17	A. Yes.	09:44
18	address?	09:42	18	Q. You understand that you have the same	09:44
19	A. Business address is the same, 10255 Fox	09:42	19	obligation to tell the truth here today as you would	09:44
20	Trace, Zionsville, Indiana 46077.	09:43	20	if you were testifying in a courtroom before a judge	09:44
21	Q. Okay. So you have an office inside your	09:43	21	and a jury?	09:44
22	home?	09:43	22	A. Yes.	09:44
23	A. Yes.	09:43	23	Q. It's important that we communicate	09:44
24	Q. I know we had met off the record, but let	09:43	24	clearly today. I'm going to ask you several	09:44
25	me please formally introduce myself.	09:43	25	questions in connection with this case.	09:44
Page 6			Page 8		
1	My name is Yitzchak Kopel. I'm a	09:43	1	If you don't understand a question,	09:44
2	lawyer. I represent the plaintiffs in the certified	09:43	2	please let me know, and I will try to clarify it for	09:44
3	classes in a class action lawsuit against BHH, LLC	09:43	3	you. Okay?	09:44
4	and Van Hauser, LLC.	09:43	4	A. Yes.	09:44
5	I'll be asking you some questions	09:43	5	Q. You understand you're being represented	09:44
6	today in connection with that lawsuit.	09:43	6	here today by counsel who's sitting right next to	09:44
7	Do you understand that?	09:43	7	you?	09:44
8	A. I do.	09:43	8	A. Yes.	09:44
9	Q. And you understand that you're not being	09:43	9	Q. Today's deposition is being videotaped.	09:44
10	sued; right?	09:43	10	Do you understand that?	09:44
11	A. Yes.	09:43	11	A. Yes.	09:44
12	Q. Okay. Have you ever sat for a deposition	09:43	12	Q. Do you understand that there is a court	09:44
13	before?	09:43	13	reporter here today. The court reporter is	09:44
14	A. Yes.	09:43	14	transcribing everything we say for the record?	09:44
15	Q. How many times?	09:43	15	A. Yes.	09:44
16	A. One.	09:43	16	Q. So let's please try to speak at a	09:44
17	Q. And was that in connection with the	09:43	17	reasonable pace to help the court reporter take down	09:45
18	Black & Decker lawsuit?	09:43	18	our words.	09:45
19	A. Yes.	09:43	19	Will you help me with that?	09:45
20	Q. Other than that, have you ever sat for a	09:43	20	A. I will try.	09:45
21	deposition?	09:43	21	Q. It's difficult for the court reporter if	09:45
22	A. No.	09:43	22	we talk over each other, so I'm going to try my very	09:45
23	Q. Have you ever testified at trial?	09:43	23	best to not interrupt you while you're answering my	09:45
24	A. No.	09:43	24	questions, and I'm going to ask that you please try	09:45
25	Q. Have you ever been a party to a lawsuit?	09:43	25	to let me finish my questions before you begin your	09:45
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1 answers. Okay? 09:45	1 Q. Do you have Exhibit 2? 09:47
2 A. Yes. 09:45	2 A. I do. 09:47
3 Q. Also, for the benefit of the court 09:45	3 Q. Have you seen it before? 09:47
4 reporter, please try to answer all of my questions 09:45	4 A. I have. 09:47
5 verbally, which means you cannot nod your head or say 09:45	5 Q. What is it? 09:47
6 things like uh-huh because those are impossible for 09:45	6 A. Defendants' Expert Witness Rebuttal to 09:47
7 the court reporter to transcribe. 09:45	7 Plaintiffs' Expert Report. 09:47
8 (WHEREUPON, there was a	8 Q. Okay. And this is your rebuttal expert 09:47
9 brief interruption.)	9 report in this case? 09:47
10 BY MR. KOPEL:	10 A. It is. 09:47
11 Q. Did you get that question? 09:45	11 Q. Have you submitted any other expert 09:47
12 A. I understand the basis of it. Yes, I 09:45	12 testimony in this case so far? 09:47
13 understand. 09:45	13 A. No. 09:47
14 Q. Okay. Is there any reason that you 09:45	14 Q. Do these reports contain a complete 09:47
15 cannot testify truthfully and accurately today? 09:45	15 statement of all opinions you will express and the 09:47
16 A. No. 09:45	16 basis and reasons for them? 09:47
17 Q. Are you taking any prescription 09:45	17 A. They include what I had at the time that 09:47
18 medications or other drugs that may affect your 09:45	18 the report was written. Subject to that, I 09:47
19 ability to think or remember or testify truthfully 09:46	19 understand some of the things have been supplied that 09:47
20 today? 09:46	20 were not available when these were written. 09:47
21 A. No. 09:46	21 Q. Okay. And you've reviewed additional 09:48
22 MR. KOPEL: I will ask the court reporter to 09:46	22 materials since they were written? 09:48
23 please mark as Exhibits Borth 1 and 2 two documents. 09:46	23 A. Yes. 09:48
24 The first one is titled, 09:46	24 Q. Have the additional materials that you've 09:48
25 "Defendants' Expert Disclosures." 09:46	25 reviewed changed anything -- changed your opinions on 09:48
Page 10	Page 12
1 The second one is titled, 09:46	1 any matters contained within those reports? 09:48
2 "Defendants' Expert Witness Rebuttal to Plaintiffs' 09:46	2 A. No, they serve to reinforce it. 09:48
3 Expert Report." 09:46	3 Q. What was your assignment in this case? 09:48
4 (Whereupon, a certain 09:46	4 A. It would be best if I could read the 09:48
5 document was marked Borth	5 purpose -- 09:48
6 Exhibit 1 for	6 Q. Go ahead. 09:48
7 identification.) 09:46	7 A. -- of the reason I was retained. 09:48
8 MR. KOPEL: Can you please hand those to the 09:46	8 So this is included in my 09:48
9 witness. 09:46	9 Defendants' Expert Disclosure. 09:48
10 BY MR. KOPEL: 09:46	10 "This document was prepared to 09:48
11 Q. Dr. Borth, do you have Exhibit 1? 09:46	11 evaluate the research reports that BHH, LLC and 09:48
12 A. I do. 09:46	12 Van Hauser, LLC used to support the entomological 09:48
13 Q. Have you seen it before? 09:46	13 claims made on and in the packaging and owner's 09:48
14 A. I have. 09:47	14 manual of various of its ultrasonic pest repeller 09:48
15 Q. What is it? 09:47	15 products." 09:49
16 A. Defendants' Expert Disclosure prepared by 09:47	16 That's the basis, the primary 09:49
17 Mr. Paul W. Borth, BCE. 09:47	17 purpose. 09:49
18 Q. So this is your expert report in this 09:47	18 Q. Okay. Are you providing an opinion as to 09:49
19 case? 09:47	19 the efficacy of the Bell + Howell ultrasonic pest 09:49
20 A. Yes, it is. 09:47	20 repellers in driving out and repelling insects? 09:49
21 (Whereupon, a certain	21 A. Yes. 09:49
22 document was marked Borth	22 Q. Are -- and can we agree for today -- I 09:49
23 Exhibit 2 for	23 understand that this isn't completely scientifically 09:49
24 identification.)	24 accurate -- but can we agree for today that if I say 09:49
25 BY MR. KOPEL: 09:47	25 the word insects, I am referring to ants, spiders, 09:49
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1 and roaches please? 09:49	1 A. I supplemented their work as a technical 09:52
2 A. That's common -- common nomenclature. 09:49	2 person. 09:52
3 If it requires -- if the answer -- 09:49	3 Q. Do you hold any degrees or certification 09:52
4 my answer requires that I separate roaches and ants 09:49	4 in marketing? 09:52
5 from spiders, I'll say so. 09:49	5 A. I'm sorry. I couldn't hear you. 09:52
6 Q. Okay. Thank you. 09:49	6 Q. Do you hold any degrees or certifications 09:52
7 Are you providing any opinion as to 09:49	7 in marketing? 09:52
8 the efficacy of Bell + Howell ultrasonic pest 09:49	8 A. No, I do not. 09:52
9 repellents in repelling and driving out rodents? 09:50	9 Q. Have you ever taught any courses in 09:52
10 A. No. 09:50	10 marketing? 09:52
11 Q. Are you an expert on rodents? 09:50	11 A. No, I have not. 09:52
12 A. No. 09:50	12 Q. Have you ever written any publications 09:52
13 Q. Are you an expert on consumer preference? 09:50	13 concerning marketing? 09:52
14 MR. OSTOJIC: Object to form, foundation. 09:50	14 A. I have written technical -- technical 09:52
15 But go ahead. 09:50	15 pieces that were contained in trade magazines, which 09:52
16 BY THE WITNESS: 09:50	16 could be considered marketing materials for pest -- 09:52
17 A. No. 09:50	17 certain pesticides. 09:52
18 BY MR. KOPEL: 09:50	18 Q. Can you please explain what you mean by 09:52
19 Q. Are you an expert on marketing? 09:50	19 that? 09:52
20 A. I've not been employed as a marketer. 09:50	20 A. Yeah. 09:52
21 Q. So are you delivering any expert opinions 09:50	21 Q. Are you referring to product instructions 09:52
22 pertaining to the fields of consumer preference or 09:50	22 or specifications? 09:52
23 marketing in this case? 09:50	23 A. I am. 09:52
24 A. Yes, I am, and that goes to my previous 09:50	24 Both product -- the -- the roles 09:52
25 employment under -- or with Dow AgroSciences, the 09:50	25 that I had in Dow AgroSciences required me over the 09:53
Page 14	Page 16
1 various roles that I held. 09:50	1 course of several years to write product labels, to 09:53
2 Q. Okay. Can you please explain what 09:50	2 review product labels, and to approve product labels. 09:53
3 opinions you're expressing regarding consumer 09:50	3 Sometimes the essence of those were 09:53
4 preference and marketing? 09:50	4 written up in trade magazine articles and then 09:53
5 A. They are contained in the report in 09:50	5 published in a trade magazine, which would -- the 09:53
6 various different ways. 09:50	6 circulation of that trade magazine would be going to 09:53
7 The one that jumps out at me as most 09:51	7 the customers of Dow AgroSciences, so I would 09:53
8 obvious is my opinion on Joanne Hart and Sandra 09:51	8 consider that marketing. 09:53
9 Bueno's deposition and their use of the devices that 09:51	9 Q. Who were the customers you're referring 09:53
10 are in question. 09:51	10 to? 09:53
11 And then the other piece in the 09:51	11 A. Professionals generally, 09:53
12 report that probably goes to your question is the 09:51	12 agriculturalists, urban pest management 09:53
13 section on -- that I pulled from Amazon reviews. 09:51	13 professionals, owners of distributorships. 09:53
14 Q. So I know I asked you this before, but I 09:51	14 Q. Okay. Did -- does Dow distribute 09:53
15 wasn't entirely clear on the answer. 09:51	15 products directly to nonprofessional consumers? 09:53
16 Are you an expert in marketing? 09:51	16 MR. OSTOJIC: Object to form. 09:54
17 A. I have had many jobs within Dow 09:51	17 But go ahead. 09:54
18 AgroSciences that -- that required that I interact 09:51	18 BY THE WITNESS: 09:54
19 with marketers and marketing and the development of 09:51	19 A. I cannot recall any that they did during 09:54
20 pesticides. 09:52	20 my employment. 09:54
21 Was I ever hired as a marketer, 09:52	21 BY MR. KOPEL: 09:54
22 which you could say would be the -- in the realm of 09:52	22 Q. Have you ever worked on any matter 09:54
23 an expert, I was never hired as an expert in 09:52	23 pertaining to the marketing of a product that was 09:54
24 marketing. 09:52	24 distributed directly to nonprofessional consumers? 09:54
25 Q. Do -- 09:52	25 A. I have to -- I have to clarify your -- 09:54
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1 the one word in your question was distributed or 09:54	1 marketed to nonprofessionals were ever written or 09:57
2 distributor. 09:54	2 reviewed by you personally? 09:57
3 In the chain of command -- not chain 09:54	3 A. I could not give you an example. 09:57
4 of command -- in the -- what's that word -- the 09:54	4 Q. So when it comes to claims written on the 09:57
5 selling chain, Dow AgroSciences was the basic 09:54	5 labeling of Bell + Howell ultrasonic pest repellers, 09:57
6 manufacturer of pesticides products. For the most 09:54	6 would you consider yourself an expert in 09:57
7 part in my employment, I can't remember anything 09:54	7 interpretation of those claims? 09:58
8 otherwise, we would sell -- the company would sell 09:54	8 A. I would. 09:58
9 those products to a distributor. Those distributors 09:54	9 Q. What's your basis for -- 09:58
10 would then sell to either another layer in the chain 09:54	10 A. The basis -- sorry. 09:58
11 or the enduser, whoever that might be. 09:55	11 Q. What's your basis for that? 09:58
12 I cannot -- maybe I'm not 09:55	12 A. The basis is that I spent many years 09:58
13 remembering your question, but I cannot remember a 09:55	13 writing, reviewing, approving pesticide labels to the 09:58
14 time when Dow AgroSciences sold directly to the 09:55	14 consumer -- or the customer of Dow AgroSciences. 09:58
15 enduser. 09:55	15 I am very well aware of the 09:58
16 Q. Were -- were these products that you 09:55	16 technical language that appears on labels. I've 09:58
17 worked on during your course at Dow, were they 09:55	17 written it, I've reviewed it, I've approved them, and 09:58
18 intended for -- solely for professionals, or did they 09:55	18 since the information on a product label is -- in my 09:58
19 also include products that were intended to be used 09:55	19 opinion -- a binding document so to speak, it tells 09:58
20 by nonprofessionals? 09:55	20 the enduser how to use the product. 09:58
21 A. I have to -- again, I have to clarify. 09:55	21 How I wrote those labels for Dow 09:58
22 There are -- there are examples 09:55	22 products would also apply for products that were 09:58
23 where Dow would sell the active ingredient to a 09:55	23 distributed or sold by Bell + Howell or Van Hauser. 09:58
24 distributor or formulator who would then formulate it 09:55	24 Q. Okay. And you hold that opinion even 09:59
25 for use by a consumer. 09:56	25 though you've -- you can't give me a single example 09:59
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1 So, again, there's a layer in 09:56	1 of any time you've ever written, reviewed, or 09:59
2 between Dow and the enduser. 09:56	2 collaborated on a claim that appeared on a product 09:59
3 Q. So did -- did Dow have any role in 09:56	3 that was directly purchased by nonprofessional 09:59
4 creating the packaging or labeling of a product that 09:56	4 consumers; correct? 09:59
5 was ultimately viewed by a nonprofessional consumer? 09:56	5 A. I cannot give you a specific example, but 09:59
6 MR. OSTOJIC: Object to form. 09:56	6 I am very confident in my years with Dow that I did 09:59
7 BY THE WITNESS: 09:56	7 so. 09:59
8 A. Yes. 09:56	8 Q. Okay. Is -- is there any -- do you think 09:59
9 BY MR. KOPEL: 09:56	9 it's possible that there might be a difference in how 09:59
10 Q. And were you involved in that? 09:56	10 an end consumer might understand something versus how 09:59
11 A. Yes. 09:56	11 a scientist or a professional might understand it? 09:59
12 Q. Can you give me an example? 09:56	12 A. Yes. 09:59
13 A. An example would be chlorpyrifos is the 09:56	13 MR. OSTOJIC: Object to form, foundation. 09:59
14 active ingredient, c-h-l-o-r-p-y-r-i-f-o-s, that's 09:56	14 BY THE WITNESS: 09:59
15 the active ingredient sold under the trade name at 09:56	15 A. Yes. 09:59
16 one time of Dursban, D-u-r-s-b-a-n. Dursban was sold 09:56	16 BY MR. KOPEL: 09:59
17 in big box stores like Lowe's Home and Garden, many, 09:56	17 Q. So when you were writing and reviewing 09:59
18 many other places. 09:57	18 claims, were you were primarily concerned with how 09:59
19 Now, Dow would have provided the 09:57	19 professionals or scientists would perceive those 09:59
20 basic product information on the label and any claims 09:57	20 claims; correct? 09:59
21 that were made on the product. 09:57	21 A. If the customer was a professional, then, 10:00
22 Whether the distributor or that next 09:57	22 yes. 10:00
23 layer added things was beyond the scope of Dow. 09:57	23 Q. And you can't give me a single example in 10:00
24 Q. Okay. So do you know for certain whether 09:57	24 which the customer was not an example; right? 10:00
25 or not any claims that appeared on a packaging 09:57	25 MR. OSTOJIC: Object -- 10:00
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1 BY MR. KOPEL:	10:00	1, opinion is legal or not.	10:02
2 Q. Was not a professional; correct?	10:00	2 Q. Okay.	10:02
3 MR. OSTOJIC: Objection. Asked and answered.	10:00	3 A. You'd have to educate me.	10:02
4 But go ahead.	10:00	4 Q. Sure.	10:02
5 BY THE WITNESS:	10:00	5 And we just discussed an example.	10:02
6 A. I cannot with my recollection today give	10:00	6 Whether or not a consumer is required to read	10:02
7 you a specific example. I could not point to a	10:00	7 instructions and use a product as directed.	10:02
8 product that -- that would appear on a shelf in a big	10:00	8 Would you agree that that's	10:02
9 box store that had my words on it.	10:00	9 something that would be at least potentially governed	10:02
10 It's very likely that I would have	10:00	10 by the applicable law?	10:02
11 reviewed and approved such language, but writing it,	10:00	11 MR. OSTOJIC: Object to form, foundation.	10:02
12 different story.	10:00	12 BY THE WITNESS:	10:02
13 BY MR. KOPEL:	10:00	13 A. I think -- yes, I would think so.	10:02
14 Q. I think earlier you -- you said that you	10:00	14 BY MR. KOPEL:	10:02
15 thought claims made on the packaging of a product	10:00	15 Q. And you're not -- you're not qualified to	10:02
16 were binding statements; is that correct?	10:00	16 render an opinion on that; correct?	10:02
17 A. I did.	10:00	17 A. I cannot point to a legal statute that	10:02
18 MR. OSTOJIC: Object. Mischaracterizes --	10:00	18 would say so. It makes common sense to me but...	10:02
19 BY MR. KOPEL:	10:00	19 Q. Do these reports, Exhibits 1 and 2 in	10:02
20 Q. Okay. So --	10:00	20 front of you, do they list all facts or data that you	10:02
21 MR. OSTOJIC: -- his testimony.	10:00	21 considered in forming your opinions?	10:03
22 But go ahead.	10:00	22 A. At the time that I wrote them, yes.	10:03
23 BY THE WITNESS:	10:00	23 Q. Now, I -- I think that your report	10:03
24 A. I remember saying that, yes, in so many	10:00	24 referenced six tests that were conducted on the	10:03
25 words.	10:00	25 Bell + Howell ultrasonic pest repeller; correct?	10:03
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1 BY MR. KOPEL:	10:00	1 A. Correct.	10:03
2 Q. Okay. What did you mean by that?	10:00	2 Q. Okay. Were you -- did you view or	10:03
3 A. I mean that it's my opinion that when a	10:00	3 consider any other reports conducted on Bell + Howell	10:03
4 customer buys a product that it is beholden upon them	10:01	4 ultrasonic pest repeller besides for those six?	10:03
5 to read the product instructions, use the product as	10:01	5 A. Yes, I was privy to the reports that were	10:03
6 it's intended to be used so that the desired effects	10:01	6 appended to Dr. Potter's reports.	10:03
7 are achieved.	10:01	7 Q. Okay. And besides for what was -- strike	10:03
8 BY MR. KOPEL:	10:01	8 that.	10:03
9 Q. Do you know whether the law requires them	10:01	9 Were you privy to those before you	10:03
10 to do so?	10:01	10 wrote your initial report in this case?	10:03
11 MR. OSTOJIC: Object to form, foundation,	10:01	11 MR. OSTOJIC: Exhibit 1?	10:03
12 also may call for a legal opinion.	10:01	12 MR. KOPEL: Yes.	10:03
13 But go ahead.	10:01	13 MR. OSTOJIC: Do you understand the question?	10:03
14 BY THE WITNESS:	10:01	14 THE WITNESS: I do.	10:04
15 A. I do not know, but it's common sense in	10:01	15 BY THE WITNESS:	
16 my opinion that a -- someone who buys a product would	10:01	16 A. And I was not.	10:04
17 use and want to before using read the instructions on	10:01	17 BY MR. KOPEL:	10:04
18 how the manufacturer says it should be used.	10:01	18 Q. Okay. Have you spoken with	10:04
19 BY MR. KOPEL:	10:01	19 Ms. Feuerstein at all?	10:04
20 Q. Are you giving opinions on legal matters	10:01	20 A. No.	10:04
21 in this case?	10:01	21 Q. Have you spoken with Mr. Mishan?	10:04
22 A. I do not know.	10:01	22 A. Yes.	10:04
23 Q. What do you mean by that?	10:01	23 Q. When did you speak with Mr. Mishan?	10:04
24 A. I'm not a lawyer, so I'm not -- I don't	10:01	24 A. I can't recall the exact date.	10:04
25 think I'm qualified to know whether I'm -- whether an	10:02	25 Q. How many times did you speak with him?	10:04
Page 23		Page 25	

1	A. Twice.	10:04	1	A. I did.	10:07
2	Q. How long ago was it?	10:04	2	Q. Do you have those notes here today?	10:07
3	A. The last was probably -- approximately	10:04	3	A. They are not here.	10:07
4	I'd say two weeks, two to three weeks ago; and the	10:04	4	Q. Did you speak with anyone else in	10:07
5	time before that might have been six weeks ago.	10:04	5	connection with your work on this case?	10:07
6	Q. What did you discuss?	10:04	6	A. No.	10:07
7	A. The first conversation was about the	10:04	7	Q. Does either -- have you provided a	10:07
8	agreement, my retention agreement, and some	10:04	8	statement of compensation in either of your expert	10:07
9	particulars with that, and the second was more or	10:05	9	reports in this case?	10:07
10	less a review of the rebuttal report that I had	10:05	10	A. I have not.	10:07
11	submitted.	10:05	11	Q. In the course of your work in Dow, I know	10:07
12	Q. Did Mr. Mishan make any comments on your	10:05	12	that you -- you did some work evaluating insecticides	10:08
13	rebuttal report?	10:05	13	or pest -- is there -- pesticides?	10:08
14	A. Verbally, yes.	10:05	14	A. That's a broader term because in typical	10:08
15	Q. What did he say?	10:05	15	parlance that would mean insecticides, herbicides,	10:08
16	A. I can't recall exact.	10:05	16	fungicides.	10:08
17	Q. Did you ultimately make changes as a	10:05	17	Q. Okay. And I assume you did work on	10:08
18	result of his comments?	10:05	18	herbicides an fungicides?	10:08
19	A. My opinions did not change. Some of the	10:05	19	A. I did.	10:08
20	text did.	10:05	20	Q. Okay. I'm -- going forward can we agree	10:08
21	Q. Who else did you speak to in connection	10:05	21	I'm not -- I'm not interested in that work. I'm --	10:08
22	with this case?	10:05	22	not that I'm not interested, but for purposes of that	10:08
23	A. Well, the attorneys that are --	10:05	23	case, I'm not looking for responses in connection	10:08
24	Mr. Ostojic who is represented here, and then his	10:05	24	with that work unless I specify otherwise, please.	10:08
25	team of -- of attorneys.	10:05	25	A. I -- I can agree with that as long as	10:08
Page 26			Page 28		
1	Q. Have you spoken with Dr. Whitford?	10:05	1	you -- as long as you understand that when I talk	10:09
2	A. Not -- I have, yeah.	10:06	2	about writing labels, reviewing labels, and approving	10:09
3	Q. When was that?	10:06	3	labels, that could include -- that does include --	10:09
4	A. I believe it was right after his	10:06	4	it's pesticides, which could include all three of	10:09
5	deposition, and that would be the only time.	10:06	5	those subcategories that you mentioned.	10:09
6	Q. Have you e-mailed with him?	10:06	6	Q. Okay. Have you ever worked in evaluating	10:09
7	A. Just recently, yes.	10:06	7	a nonlethal pest repellent during the -- during your	10:09
8	Q. How long was your conversation after his	10:06	8	time at Dow?	10:09
9	deposition?	10:06	9	A. I would say yes.	10:09
10	A. I'm guessing 10 or 15 minutes.	10:06	10	Q. Can -- sure.	10:09
11	Q. What did you guys discuss?	10:06	11	Can you elaborate?	10:10
12	A. We -- primarily we discussed his research	10:06	12	A. Elaborate, yes.	10:10
13	with the transonic unit.	10:06	13	There was at least one instance	10:10
14	Q. What did he say about -- oh, I'm sorry.	10:06	14	where Dow AgroSciences was working on a repeller --	10:10
15	Go ahead.	10:06	15	repellent material for bedbugs. It never made it to	10:10
16	A. And -- and his deposition.	10:06	16	commercialization. It was not decided by the	10:10
17	Q. What did he say about it?	10:06	17	business team that there was -- we didn't have the	10:10
18	A. It was just points here and there. I	10:06	18	right infrastructure to sell that so.	10:10
19	mean nothing really -- there wasn't any action taken	10:07	19	Q. Thanks for that response.	10:10
20	because it was just back and forth comments.	10:07	20	Now, as it pertains to spiders,	10:10
21	Q. Did you -- you were present by telephone	10:07	21	ants, and roaches, have you ever worked on evaluating	10:10
22	for Dr. Whitford's deposition; correct?	10:07	22	the efficacy of repellent for those insects outside	10:10
23	A. Yes, I was.	10:07	23	of your expert testimony in this case and in the	10:10
24	Q. Did you take notes while you listened to	10:07	24	Black & Decker case?	10:10
25	it?	10:07	25	MR. OSTOJIC: Object to form.	10:10
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1 Go ahead. 10:10  
 2 BY THE WITNESS: 10:10  
 3 A. No. 10:10  
 4 BY MR. KOPEL: 10:11  
 5 Q. Are you aware of whether or not Dow 10:11  
 6 during your time there ever considered manufacturing 10:11  
 7 any sort of repellent for ants, spiders, and roaches? 10:11  
 8 A. I'm not aware of such. 10:11  
 9 Q. Have -- now, when you were evaluating 10:11  
 10 insecticides at Dow, was Dow conducting its own tests 10:11  
 11 on the insecticides in-house? 10:11  
 12 A. They were, in combination with other 10:11  
 13 entities globally. 10:11  
 14 Q. So you -- was your job to review data 10:11  
 15 from tests conducted by Dow in addition to data from 10:12  
 16 tests conducted by other laboratories? 10:12  
 17 A. In certain of those roles that are in the 10:12  
 18 CV, yes. 10:12  
 19 Q. Are you familiar with i2L? 10:12  
 20 A. I am -- well, I was aware of the company 10:12  
 21 they evolved from, and I -- they're in Baltimore, 10:12  
 22 Maryland, and I visited their labs for actually 10:12  
 23 purposes of Dow contracting them to do some bedbug 10:12  
 24 work and maybe other things, so -- but I cannot 10:12  
 25 remember what the name of the company was before they 10:12  
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1 became i2L. 10:12  
 2 Q. I think it might have been ICR. 10:12  
 3 Does that ring a bell? 10:12  
 4 A. Yeah, that sounds correct, yes. 10:12  
 5 Q. But it was the same staff, correct? 10:12  
 6 A. Well, Rob and Todd, the director, moved 10:12  
 7 on to something else. I don't know whether the 10:12  
 8 technicians are the same or not. 10:12  
 9 Q. Okay. Do you know Timothy Ford? 10:13  
 10 A. That's interesting -- I -- I think I 10:13  
 11 might have met him. The name is familiar. I can't 10:13  
 12 be certain. 10:13  
 13 Q. How about Christine Stier? 10:13  
 14 A. I do not recall that name. 10:13  
 15 Q. Jennifer Hostetler? 10:13  
 16 A. I do not recall that name. 10:13  
 17 Q. And in the course of your work at Dow, 10:13  
 18 did you rely on test results from -- that were 10:13  
 19 produced by i2L or its predecessor? 10:13  
 20 A. Yes. 10:13  
 21 Q. Do you know them to be competent 10:13  
 22 scientists? 10:13  
 23 MR. OSTOJIC: Object to form and foundation. 10:13  
 24 BY THE WITNESS: 10:13  
 25 A. In the area of bedbugs, we had no reason 10:13  
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1 to believe they were not. That area of research was 10:13  
 2 just really starting to take off, and methods, 10:14  
 3 protocols were just being established, so now some 20 10:14  
 4 years later, whatever protocols they used for bedbugs 10:14  
 5 are probably improved, perfected, but we had no 10:14  
 6 reason not to believe they were competent in bedbug 10:14  
 7 research. 10:14  
 8 BY MR. KOPEL: 10:14  
 9 Q. Do you know Bill Donahue? 10:14  
 10 A. No. 10:14  
 11 Q. Have -- have you ever had occasion to 10:14  
 12 discuss ultrasonic technology with any of your 10:14  
 13 colleagues at Dow? 10:14  
 14 A. Not in a professional setting. 10:14  
 15 Q. Okay. And who did you speak to about it 10:14  
 16 outside of the professional setting? 10:14  
 17 A. Yeah, I've been an entomologist in the 10:14  
 18 profession for over 30 years, and during the course 10:15  
 19 of those years when ultrasound repellers were first 10:15  
 20 coming on the market, I'm sure that I had discussions 10:15  
 21 with people, not in Dow, because -- well, not in Dow, 10:15  
 22 but I cannot remember who those people were. 10:15  
 23 Q. Okay. Can you please describe the 10:15  
 24 contents of your discussions? 10:15  
 25 MR. OSTOJIC: Object to form, foundation. 10:15  
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1 BY THE WITNESS: 10:15  
 2 A. Well, it would primarily be the interest 10:15  
 3 in the research, in all the researchers that were 10:15  
 4 publishing data on ultrasonic repellers. 10:15  
 5 BY MR. KOPEL: 10:15  
 6 Q. Which researchers are you referring to? 10:15  
 7 A. More than -- well, the ones that -- at 10:15  
 8 least the ones that were cited in Dr. Potter's 10:16  
 9 reports. Not all of them. I don't know all of those 10:16  
 10 people. 10:16  
 11 But Ballard and Gold were the ones 10:16  
 12 that come to mind. 10:16  
 13 Q. Dr. Subramanyam? 10:16  
 14 A. Oh, Subramanyam. 10:16  
 15 Actually, I didn't know until I read 10:16  
 16 this that he was involved in ultrasonic repellers. I 10:16  
 17 hadn't seen any of his research. He's an in -- I 10:16  
 18 know him. He's primarily -- he -- his primary 10:16  
 19 expertise or where he -- where he has spent most of 10:16  
 20 his research with Dow has been in area of fumigation. 10:16  
 21 Q. And you -- you've relied on his research 10:16  
 22 in the course of your work at Dow? 10:16  
 23 A. Fumigation work, yes. 10:16  
 24 Q. How about -- the names I think you 10:16  
 25 mentioned so far were Ballard, Gold? 10:16  
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1 A. Yes. 10:16	1 of your work at Dow? 10:19
2 Q. How about them? Have you relied on their 10:16	2 A. I've had no reason to because there was 10:19
3 work? 10:17	3 no rodent projects going on. 10:19
4 MR. OSTOJIC: Object to form. 10:17	4 Q. Do you know him to be a competent and 10:19
5 BY MR. KOPEL:	5 qualified rodentologist? 10:19
6 Q. In the course of your -- in the course 10:17	6 A. Only by reputation. 10:19
7 of --	7 Q. Now, given that you were aware of -- let 10:19
8 A. Within Dow? 10:17	8 me take a step back. 10:19
9 Q. Yes. 10:17	9 You mentioned that during your time 10:19
10 A. Not personally, but they have a long 10:17	10 at Dow you likely had discussions with -- with people 10:19
11 history, and it's likely that prior to my taking the 10:17	11 about ultrasonic technology in a nonprofessional 10:19
12 role -- a role they would have been -- done some 10:17	12 setting; correct? 10:19
13 independent research and probably for termites 10:17	13 A. Yes. 10:19
14 because that was Dow AgroSciences' emphasis. 10:17	14 Q. Okay. Did you consider looking into the 10:19
15 BY MR. KOPEL: 10:17	15 manufacture of devices using this technology in the 10:19
16 Q. Do you know each of these individuals to 10:17	16 course of your work at Dow? 10:20
17 be competent entomologists? 10:17	17 A. No. 10:20
18 MR. OSTOJIC: Object to form, foundation. 10:17	18 MR. OSTOJIC: Object to form. 10:20
19 BY THE WITNESS: 10:17	19 BY MR. KOPEL: 10:20
20 A. I do not know Jim Ballard. I know the 10:17	20 Q. Why not? 10:20
21 name. I've never met him. 10:17	21 A. It wasn't the core competency of Dow 10:20
22 Dr. Roger Gold, I have met. He's 10:17	22 AgroSciences to test non-pesticidal products such as 10:20
23 got a distinguished title, has a distinguished chair 10:17	23 ultrasonics at -- at that time. 10:20
24 at Texas A&M I believe in urban pest management. 10:17	24 Q. Okay. And so at a later date you did 10:20
25 Just like I indicated for the 10:17	25 come to test a device regarding bedbugs; right? 10:20
Page 34	Page 36
1 Beijing University professor, you would expect that 10:17	1 A. Yes, sir. 10:20
2 somebody rising to that level in the university 10:17	2 Q. Okay. And what was the distinction 10:20
3 system would be -- whatever you said -- competent 10:18	3 between ultrasonic technology and that technology in 10:20
4 or -- I can't remember the last part of your 10:18	4 terms of whether or not it was suitable to look into 10:20
5 question. 10:18	5 for production by Dow? 10:20
6 BY MR. KOPEL: 10:18	6 A. Well, those decisions -- it was never my 10:20
7 Q. How about Dr. Potter? Had you heard of 10:18	7 sole decision to do so or not. It was always a team 10:20
8 Dr. Potter prior to this lawsuit? 10:18	8 setting, and in those initial discussions one of the 10:20
9 A. Yes, I have. 10:18	9 first things that was in the stepwise process in 10:20
10 Q. And have you ever relied on his work in 10:18	10 Dow's product development was to engage the business 10:21
11 the course of your work at Dow? 10:18	11 leaders to decide whether there was suitable market 10:21
12 A. Yes, because he was active in testing 10:18	12 size or not to go into those -- to even spend money 10:21
13 urban pest management products, and my -- the people 10:18	13 on the first -- the first set of researches. 10:21
14 that reported to me when I was director of some of 10:18	14 So the difference being -- again, 10:21
15 these groups would have gone to Dr. Potter as a 10:18	15 ultrasonics was in an era that I was not involved in 10:21
16 university -- unbiased university person and 10:18	16 this same kind of decisionmaking. 10:21
17 placed -- asked to place some of our products in his 10:18	17 But bedbugs, we perceived it to be a 10:21
18 testing. 10:18	18 huge opportunity, a huge market; and somebody, first 10:21
19 Q. Do you know Dr. Potter to be a competent 10:18	19 one in, usually makes the most money. 10:21
20 and qualified entomologist? 10:18	20 Q. You are not an expert in the physics of 10:21
21 A. Yes. 10:18	21 ultrasonic technology; correct? 10:21
22 Q. What about Bobby Corrigan? Have you 10:18	22 A. Correct. 10:22
23 heard of him? 10:19	23 Q. And you have no formal training in the 10:22
24 A. I have. 10:19	24 physics of ultrasonic technology; correct? 10:22
25 Q. Have you relied on his work in the course 10:19	25 A. Correct. 10:22
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1 Q. Can you -- can you please take a look at 10:22	1 So if I'm in an agricultural field 10:26
2 Pages 18 and 19 of Exhibit 2, and let me know when 10:22	2 and I control aphids in a soybean field, I have 10:26
3 you're there. 10:22	3 reduced the number of aphids in that soybean field 10:26
4 A. This would be of my rebuttal report; 10:23	4 below a level which would cause the farmer harm, 10:26
5 right? 10:23	5 monetary damage. It's called economic threshold. 10:26
6 Q. Correct. 10:23	6 Similarly, if you're in an urban 10:26
7 A. Yes, I'm there. 10:23	7 environment -- 10:26
8 Q. Okay. Do you see there's a section 10:23	8 Q. What does that mean? Like inside of a 10:26
9 titled, "Inherent Bias Throughout the Potter Report"? 10:23	9 residence? 10:26
10 A. I do. 10:23	10 A. Yes. 10:26
11 Q. Okay. Now, here -- it -- it looks like 10:23	11 Q. Okay. Thanks. 10:26
12 you take issue with two -- with two things Dr. Potter 10:23	12 A. If a pesticide reduces the number of 10:26
13 did, which was use of the words/phrase control and 10:23	13 cockroaches, let's say, below a level that is 10:26
14 out of buildings; correct? 10:23	14 concerning to the customer, then there -- is there by 10:26
15 A. Yes. 10:23	15 control. That's what I mean by control. 10:26
16 Q. Okay. So let's -- I was hoping you can 10:23	16 Q. Can you please explain why you thought it 10:27
17 explain these to me one at a time. 10:23	17 was inappropriate for Dr. Potter to use that term in 10:27
18 What -- what does the word control 10:23	18 this context? 10:27
19 mean, and why is it inappropriate in this context? 10:23	19 A. Yes, I sure can. 10:27
20 MR. OSTOJIC: Object to form, foundation. 10:23	20 Q. Go ahead. 10:27
21 Why don't you read that section and 10:23	21 A. The word control is not used in any of 10:27
22 then go ahead and... 10:23	22 the product literature that Bell + Howell produced. 10:27
23 THE WITNESS: Yeah. 10:24	23 Q. Have you seen evidence that the 10:27
24 MR. KOPEL: Just let me know whenever you're 10:24	24 Bell + Howell ultrasonic pest repellers are capable 10:27
25 ready. 10:24	25 of reaching the level of pest control in an urban 10:27
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1 THE WITNESS: All right. I'm ready. 10:25	1 environment? 10:27
2 MR. KOPEL: Okay. Do you remember the 10:25	2 MR. OSTOJIC: Object to form, foundation. 10:27
3 question I asked? 10:25	3 Go ahead. 10:27
4 THE WITNESS: No, I would like to have it 10:25	4 BY THE WITNESS: 10:27
5 repeated. 10:25	5 A. I'm sorry. I'm thinking through all 10:27
6 BY MR. KOPEL: 10:25	6 the -- 10:27
7 Q. Sure. 10:25	7 MR. KOPEL: Do you need me to rephrase the 10:27
8 Can you please define what you were 10:25	8 question? 10:27
9 referring to when you speak of pest control here and 10:25	9 THE WITNESS: Well, either to repeat or 10:27
10 explain why you think it is inappropriate in this 10:25	10 rephrase, yeah. 10:28
11 context? 10:25	11 MR. KOPEL: Yeah, no problem. No problem. 10:28
12 A. I'll start with the second part of your 10:25	12 BY MR. KOPEL: 10:28
13 question. Why is it -- did you say appropriate or 10:25	13 Q. So -- let me try to take a step back. 10:28
14 inappropriate? 10:25	14 You've now defined what pest -- what 10:28
15 Q. I think to set a foundation so we all 10:25	15 you believe pest control means in the context of a 10:28
16 understand what we're talking about, let me break up 10:25	16 residence; correct? 10:28
17 the question. 10:25	17 A. Yes. 10:28
18 A. Okay. 10:25	18 Q. Have you seen evidence that the 10:28
19 Q. Can you please explain what you mean by 10:25	19 Bell + Howell ultrasonic pest repellers are capable 10:28
20 pest control in this context, what that means? 10:25	20 of pest control inside of a residence? 10:28
21 A. Control to me means rid the pest of -- 10:25	21 A. I've seen evidence of control in the 10:28
22 no, let me back up. 10:25	22 laboratory setting that -- in these six, five-five 10:28
23 For the customer that's using it 10:25	23 studies that were mentioned earlier. 10:28
24 control would mean that you have eliminated the 10:25	24 I would add that in -- from the 10:28
25 concern from the environment. 10:26	25 depositions of Joanne Hart and Sandra Bueno that 10:28
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1 there was a level of control exhibited there in those 10:28	1 Go ahead. 10:30
2 residences. 10:28	2 BY THE WITNESS: 10:30
3 Q. Okay. And -- and as a matter of science, 10:28	3 A. I guess I cannot ask you questions, 10:30
4 do you think it's appropriate to rely on the 10:29	4 but -- 10:30
5 experience of two individuals to reach a scientific 10:29	5 MR. KOPEL: You can ask for a clarification. 10:30
6 conclusion? 10:29	6 BY THE WITNESS: 10:31
7 MR. OSTOJIC: Object to form, foundation. 10:29	7 A. Clarify reliable for me. 10:31
8 BY MR. KOPEL: 10:29	8 BY MR. KOPEL: 10:31
9 Q. Maybe I need to -- maybe I need to 10:29	9 Q. Well, you just said that -- you -- I 10:31
10 rephrase the question. 10:29	10 believe what you just said -- I was using the word 10:31
11 Do you believe it's appropriate to 10:29	11 reliable based on what you said, and -- what I 10:31
12 rely on anecdotal accounts of two consumers of making 10:29	12 believe you said was that anecdotal evidence may be 10:31
13 a determination if something is effective? 10:29	13 considered as part of a whole package, but by itself 10:31
14 A. Isn't the basis of this lawsuit, those 10:29	14 it's not really reliable, so I was using reliable in 10:31
15 two consumers? 10:29	15 the same context as you. 10:31
16 Q. I -- and I appreciate that you're not an 10:29	16 A. Okay. So the question again was, as I 10:31
17 attorney, so you probably don't know this, but it's 10:29	17 remember it. Have I seen reliable evidence in a 10:31
18 not really appropriate for you to ask me questions. 10:29	18 consumer -- 10:31
19 I'm going to ask the questions. 10:29	19 MR. KOPEL: Do you want to read back. 10:31
20 Can you please answer my question? 10:29	20 THE WITNESS: Yeah. Sorry. 10:31
21 A. I'll try. 10:29	21 MR. KOPEL: I'll just ask the court reporter 10:31
22 Q. Go ahead. Do you remember the question? 10:29	22 to please read the question one more time. 10:31
23 A. No. 10:29	23 THE WITNESS: Now that I understand reliable. 10:31
24 Q. Do you believe as a matter of science 10:29	24 MR. KOPEL: That's fine. 10:31
25 it's appropriate to rely on the anecdotal accounts of 10:29	25
Page 42	Page 44
1 two consumers in reaching your conclusions? 10:29	1 (WHEREUPON, the record was 10:31
2 MR. OSTOJIC: Object. Form, foundation, and 10:29	2 read by the reporter.) 10:31
3 mischaracterizes his testimony. 10:29	3 MR. OSTOJIC: Same objections. 10:31
4 Go ahead. 10:29	4 BY THE WITNESS: 10:32
5 BY THE WITNESS: 10:29	5 A. No. 10:32
6 A. Anecdotal evidence is not something I 10:29	6 BY MR. KOPEL: 10:32
7 would rely on 100 percent. In the -- but I would 10:29	7 Q. Let's talk about driving pests out of the 10:32
8 consider it as the part of the whole -- the whole 10:30	8 home or out of the building. 10:32
9 data package, if you will, the whole total data 10:30	9 Now, when -- in the context of the 10:32
10 package. 10:30	10 Bell + Howell devices, we've got the claim: Drive 10:32
11 BY MR. KOPEL: 10:30	11 pests out; correct? 10:32
12 Q. Have you seen reliable evidence that the 10:30	12 A. Yes. 10:32
13 Bell + Howell ultrasonic pest repellers are capable 10:30	13 Q. Okay. What do you interpret that to 10:32
14 of pest control in a residential environment? 10:30	14 mean? 10:32
15 MR. OSTOJIC: Object. Asked and answered. 10:30	15 A. I interpret that to mean that the device 10:32
16 But go ahead. 10:30	16 will drive pests out of the range of their hearing or 10:32
17 BY THE WITNESS: 10:30	17 being exposed to the device. 10:32
18 A. That's a long -- that's a long question. 10:30	18 Q. So if pests are inside of -- or 10:32
19 Can you say it again? 10:30	19 underneath a floor, for instance, or in a crack in a 10:32
20 MR. KOPEL: Can you please repeat the 10:30	20 floor, would that be included? 10:32
21 question? 10:30	21 MR. OSTOJIC: Object to form. 10:32
22 (WHEREUPON, the record was 10:30	22 BY THE WITNESS: 10:32
23 read by the reporter.) 10:30	23 A. Included in what? 10:32
24 MR. OSTOJIC: Same objections. Asked and 10:30	24 MR. OSTOJIC: What? 10:32
25 answered. 10:30	25 MR. KOPEL: Sure. Let me take a step back. 10:32
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1 BY MR. KOPEL: 10:33	1 ultrasonic pest repellers, the Bell + Howell 10:35
2 Q. If pests in a crack in a floor or 10:33	2 ultrasonic pest repellers are capable of being 10:35
3 underneath a floor, then the ultrasonic sound waves 10:33	3 effective beyond a period of nine days? 10:36
4 would not be able to reach them; correct? 10:33	4 MR. OSTOJIC: Object to form. 10:36
5 A. More than likely. 10:33	5 Go ahead. 10:36
6 Q. Okay. So is -- so is that area included 10:33	6 BY THE WITNESS: 10:36
7 under your definition of drives pests out? 10:33	7 A. I'm trying to remember the length of time 10:36
8 MR. OSTOJIC: Object to form. 10:33	8 that the six tests that you referenced were 10:36
9 But go ahead. 10:33	9 conducted. 10:36
10 BY THE WITNESS: 10:33	10 BY MR. KOPEL: 10:36
11 A. If it was to drive -- if the ultrasonic 10:33	11 Q. Now, this isn't -- it's not a memory 10:36
12 repeller drove pests out of a room, let's say, to 10:33	12 test, so if it helps you answer the question, I'm 10:36
13 some area where they could not hear or be exposed to 10:33	13 happy to mark those as exhibits. 10:36
14 the ultrasonic sound, then the answer is yes; and if 10:33	14 A. It would help. 10:36
15 that's behind walls, yes; if that's in cracks, yes; 10:33	15 Q. Okay. 10:36
16 if it's -- if they can't -- if they're not exposed to 10:33	16 A. Because I don't know if they were longer 10:36
17 the sound, they can't be repelled. 10:33	17 than nine days or not. 10:36
18 BY MR. KOPEL: 10:34	18 Q. Perfectly understandable, so let's, 10:36
19 Q. Do you think it was -- it is unreasonable 10:34	19 please -- the first thing I'm going to hand you is a 10:36
20 for a consumer to understand drives pests out to mean 10:34	20 document that was previously marked as Exhibit 13. 10:36
21 drives pests out of the house? 10:34	21 MR. OSTOJIC: Is this 13 on -- 10:37
22 A. I do not. 10:34	22 MR. KOPEL: Yes, this was marked as -- I 10:37
23 Q. You think that is a reasonable 10:34	23 believe at Mr. Mishan's deposition. 10:37
24 interpretation? 10:34	24 THE WITNESS: Okay. So just to be clear, I'm 10:37
25 A. I sure do. 10:34	25 only looking at the inspect reports. 10:37
Page 46	Page 48
1 MR. OSTOJIC: Object to form, foundation. 10:34	1 MR. KOPEL: Sure. And I'm going to hand you 10:37
2 Go ahead. 10:34	2 three -- we're going to mark three additional 10:37
3 BY MR. KOPEL: 10:34	3 exhibits. 10:37
4 Q. Now, have you seen evidence that the 10:34	4 While you're looking that over, I'll 10:37
5 Bell + Howell ultrasonic pest repellers are capable 10:34	5 ask the court reporter to mark three documents. 10:38
6 of driving pest out of a house? 10:34	6 The first one is Bates No. 10:38
7 MR. OSTOJIC: Object to form, foundation. 10:34	7 Feuerstein 74 through 85. 10:38
8 BY THE WITNESS: 10:34	8 I'll ask the court reporter to 10:38
9 A. No. 10:34	9 please mark this as Exhibits Borth -- we're up to 3; 10:38
10 BY MR. KOPEL: 10:34	10 right? 3. 10:38
11 Q. Same question for a living space. 10:34	11 (Whereupon, a certain 10:38
12 Have you seen evidence that the 10:34	12 document was marked Borth
13 Bell + Howell ultrasonic pest repellers are capable 10:34	13 Exhibit 3 for
14 of driving pests out of a living space? 10:34	14 identification.) 10:38
15 A. It would be anecdotal evidence, but I go 10:35	15 MR. KOPEL: The second document is Bates Nos. 10:38
16 back to the Hart and Bueno depositions and assert 10:35	16 BHH LLC 1810 through 1815. 10:38
17 that they -- the use of repeller could have been 10:35	17 I'll ask the court reporter to mark 10:38
18 responsible for what they experienced, what they saw, 10:35	18 that down at Borth Exhibit 4. 10:38
19 the results. 10:35	19 (Whereupon, a certain
20 Q. Have you seen reliable scientific 10:35	20 document was marked Borth
21 evidence that the Bell + Howell ultrasonic pest 10:35	21 Exhibit 4 for
22 repellers are capable of driving pests out of a 10:35	22 identification.) 10:38
23 living space? 10:35	23 MR. KOPEL: The third document bears Bates 10:38
24 A. No. 10:35	24 Nos. BHH LLC 712 through 717, and I'll ask the court 10:38
25 Q. Have you seen evidence that the 10:35	25 reporter to please mark that as Borth Exhibit 5. 10:38
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1	(Whereupon, a certain	10:38	1	please mark as Borth Exhibit 6 the Deposition	10:47
2	document was marked Borth		2	Transcript of Debbie Feuerstein.	10:47
3	Exhibit 5 for		3	(Whereupon, a certain	10:47
4	identification.)	10:39	4	document was marked Borth	
5	MR. OSTOJIC: Would you go over Exhibits 3,	10:39	5	Exhibit 6 for	
6	4, and 5, the Bates stamp again.	10:39	6	identification.)	10:47
7	MR. KOPEL: Well, I'll just give them to you	10:39	7	BY MR. KOPEL:	10:47
8	if that's okay. Or -- or -- do you have them, Rob?	10:39	8	Q. Dr. Borth, do you have Exhibit 6?	10:47
9	MR. OSTOJIC: Yeah, I have them.	10:39	9	A. I do.	10:48
10	MR. KOPEL: Yeah, no problem.	10:39	10	Q. Have you seen it before?	10:48
11	So Feuerstein 74 through 85 is Borth	10:39	11	A. I have, yeah. I'm assuming that all the	10:48
12	3.	10:39	12	pages are here.	10:48
13	MR. OSTOJIC: Okay.	10:39	13	Q. What is it?	10:48
14	MR. KOPEL: BHH LLC 1810 through 1815 is 4.	10:39	14	A. What is it? It's a videotape -- well,	10:48
15	MR. OSTOJIC: Uh-huh.	10:39	15	not videotape.	10:48
16	MR. KOPEL: And BHH LLC 712 through 717 is 5.	10:39	16	Joanne -- I'm just reading the title	10:48
17	MR. OSTOJIC: Got it. Thank you.	10:39	17	page. Joanne Hart and Amanda Park, on behalf of	10:48
18	MR. KOPEL: I'm going to ask the court	10:41	18	themselves and all other similarly situated,	10:48
19	reporter to please repeat the question and then we'll	10:41	19	plaintiffs, versus BHH and Van Hauser, defendants,	10:48
20	wait for her to catch up with us and you'll give your	10:41	20	videotaped deposition of Debbie Feuerstein, taken	10:48
21	answer, please.	10:41	21	at -- in New York.	10:48
22	THE WITNESS: Okay.	10:42	22	It's -- I guess that's good enough.	10:48
23	(WHEREUPON, the record was		23	Q. And you read this before you drafted your	10:48
24	read by the reporter.)		24	expert reports in this case; correct?	10:48
25	THE WITNESS: Okay. Could you repeat it one	10:45	25	A. I did, yes.	10:48
Page 50			Page 52		
1	more time, and then I've got an answer.	10:45	1	Q. Okay. Is -- now, the tests which were	10:48
2	(WHEREUPON, the record was	10:45	2	marked as Borth Exhibits 3, 4, 5, and the document	10:49
3	read by the reporter.)	10:45	3	which I handed to you, which was previously marked as	10:49
4	MR. OSTOJIC: Object to form.	10:45	4	Exhibit 13, was it your contention that these tests	10:49
5	Go ahead.	10:45	5	were supervised by a department head from the	10:49
6	BY THE WITNESS:	10:45	6	University of Beijing?	10:49
7	A. I have not.	10:45	7	A. Yes, that's what I understood from the	10:49
8	BY MR. KOPEL:	10:45	8	deposition transcripts.	10:49
9	Q. Have you seen reliable evidence that the	10:45	9	Q. Okay. Can you please have a look at	10:49
10	Bell + Howell ultrasonic pest repellers are capable	10:45	10	Exhibit 6 on Page 31. If you see there's four pages	10:49
11	of repelling pests in a carpeted room?	10:45	11	on each?	10:49
12	A. No.	10:46	12	A. Uh-huh.	10:49
13	Q. Have you seen reliable evidence that the	10:46	13	Okay.	10:49
14	Bell + Howell ultrasonic pest repellers are capable	10:46	14	Q. So you see here On Line 17 Ms. Feuerstein	10:49
15	of repelling pests in a room with furniture in it?	10:46	15	says, "The initial testing was conducted in China by	10:50
16	MR. OSTOJIC: Object to form.	10:46	16	Beijing University Agriculture Department?"	10:50
17	Go ahead.	10:46	17	Do you see that?	10:50
18	BY THE WITNESS:	10:46	18	A. Yes.	10:50
19	A. No.	10:46	19	Q. Okay. And -- okay. Do you see on	10:50
20	BY MR. KOPEL:	10:46	20	Page 32, Line 18, question, "Do you still have a copy	10:50
21	Q. Have you seen reliable evidence that the	10:46	21	of those tests results? Answer, "No I don't have	10:50
22	Bell + Howell ultrasonic pest repellers are capable	10:46	22	those copy anymore?"	10:50
23	of repelling pests in a room with a bed in it?	10:46	23	A. I see that.	10:50
24	A. No.	10:46	24	Q. Okay. Do you understand, based on this,	10:50
25	MR. KOPEL: I'll ask the court reporter to	10:47	25	that this is the -- the department head in Beijing	10:50
Page 51			Page 53		

1 University supervised another test which 10:50	1 Do you see that? 10:55
2 Ms. Feuerstein did not have copies for? 10:51	2 A. I do. 10:55
3 MR. OSTOJIC: Object to form, foundation. 10:51	3 Q. Okay. Does that change your response? 10:55
4 Incomplete. 10:51	4 MR. OSTOJIC: Object to form, foundation. 10:55
5 THE WITNESS: Before answering that I'd like 10:51	5 But go ahead. 10:55
6 to take time to kind of get the context. 10:51	6 BY THE WITNESS: 10:55
7 MR. KOPEL: Well -- that's perfectly fine. 10:51	7 A. It does appear that the university 10:55
8 Go ahead. 10:51	8 professor at Beijing -- with what I've read up to 10:55
9 THE WITNESS: Okay. 10:53	9 this point, you know, there might be more later, but 10:55
10 MR. KOPEL: Do you remember the question? 10:53	10 up to Page 36 and 37, did not have supervisory 10:55
11 THE WITNESS: No, I would like to have it 10:53	11 control, if you will, over the protocols and the 10:55
12 just repeated. 10:53	12 testing. 10:56
13 MR. KOPEL: Please repeat the question. 10:53	13 BY MR. KOPEL: 10:56
14 (WHEREUPON, the record was 10:53	14 Q. Okay. Can you please turn to Page 56 of 10:56
15 read by the reporter.) 10:53	15 the deposition transcript. 10:56
16 MR. KOPEL: I think I can probably rephrase 10:53	16 A. Okay. 10:56
17 that. 10:53	17 Q. I'm going to recite some lines here for 10:56
18 Do you understand the question? 10:53	18 the record, but you are welcome to read as much as 10:57
19 BY THE WITNESS: 10:53	19 you would like for context. 10:57
20 A. As it relates to this Long Whale company 10:53	20 Here on Page 56, starting with Line 10:57
21 that she did -- she admits that she did not have 10:53	21 22, question, "Below it says, 'Plug it in' -- and 10:57
22 copies of it. 10:53	22 there is an ellipsis -- 'drive pests out.' Do you 10:57
23 BY MR. KOPEL: 10:53	23 see that?" 10:57
24 Q. Okay. Do you still contend that the 10:53	24 Answer, "Yes." 10:57
25 department head in Beijing University supervised 10:54	25 Question, "Who originally wrote 10:57
Page 54	Page 56
1 those other tests? 10:54	1 that?" 10:57
2 A. Which other tests? 10:54	2 Answer, "I think my designer took it 10:57
3 Q. The tests found -- marked as 10:54	3 from the art work we have in the past." 10:57
4 Exhibit Borth 3, 4, 5, and the document previously 10:54	4 I'm skipping over to Page 57, Line 10:57
5 marked as Exhibit 13. 10:54	5 14. Question, "What do you interpret this phrase to 10:57
6 A. Yes. Unless I'm understanding it wrong, 10:54	6 mean?" 10:57
7 I read the chronology -- as I read the chronology 10:54	7 Answer, "Plug it in, drive pest out" 10:57
8 here, Ms. Feuerstein contracted tests before 10:54	8 exclamation point -- question mark. 10:57
9 commercialization that she does not have records for, 10:54	9 Question, "Correct?" 10:57
10 and then there was a second round of testing 10:54	10 Answer, "Yeah, this is the plug-in 10:57
11 supervised by the professor at Beijing University 10:54	11 unit, so you plug into a C outlet, meaning don't do 10:57
12 that I understood to be the six reports that are 10:54	12 any work, and then ultrasonic work used to drive 10:57
13 included in the report. 10:54	13 pests out." 10:57
14 Q. Can you please take a look at Page 36, 10:54	14 Question, "Drive pests out of a home 10:57
15 Line 19? 10:54	15 or office?" 10:57
16 A. Yes. 10:54	16 Answer, "Of the area." 10:57
17 Q. Question, "Had you ever run any tests at 10:54	17 Question, "Of the area?" 10:58
18 Beijing University on the pest repellers since that 10:55	18 Answer, "Out of the area of room 10:58
19 time?" 10:55	19 where pest repeller is." 10:58
20 Answer, "I think we did once or 10:55	20 Question, "So this phrase was not 10:58
21 twice test with them through one or two years and 10:55	21 intended to mean that the repellers could drive pests 10:58
22 then -- then that's it. Yeah, yeah, I think 10:55	22 out of the home or office?" 10:58
23 professor, I think left. I think he is no longer at 10:55	23 Answer, "It is the repeller drive 10:58
24 Beijing University, so we end up switch our testing 10:55	24 the pests out from the home." 10:58
25 to professional laboratories." 10:55	25 Question, "Oh, so it means it drives 10:58
Page 55	Page 57

1 pests out from the home?" 10:58	1 But go ahead and answer. 11:00
2 Answer, "Right, right." 10:58	2 BY THE WITNESS: 11:00
3 And I'll just skip to Line 22. Then 10:58	3 A. I -- I see that that -- I see what you 11:00
4 this is a question. 10:58	4 read, that she had -- the question was: "And you had 11:00
5 "The use of the multipack in that 10:58	5 a role in approval each of these pieces of artwork?" 11:00
6 statement is intended to mean that if a consumer uses 10:58	6 And she answers, "Yes" -- "before it 11:00
7 all the repellents in the pack, they'll be able to 10:58	7 hit the market, yes." 11:00
8 drive pests out of their home; correct?" 10:58	8 Q. Okay. And, I'm sorry, that wasn't 11:00
9 Answer, "Yes." 10:58	9 exactly my question. 11:00
10 Do you see that? 10:58	10 MR. KOPEL: Can you please repeat my 11:00
11 A. I do. 10:58	11 question? 11:00
12 Q. Okay. Does this change your opinion on 10:58	12 (WHEREUPON, the record was 11:00
13 what is meant when the product says, "Drive pests 10:58	13 read by the reporter.) 11:00
14 out?" 10:58	14 MR. OSTOJIC: Same objections. Form, 11:01
15 A. No. 10:58	15 foundation. He's already asked and answered it, and 11:01
16 Q. Okay. And do you see here where 10:58	16 it's also an incomplete hypothetical I think. 11:01
17 Ms. Feuerstein says, "The repeller drive pests out 10:58	17 But go ahead. 11:01
18 from the home?" 10:58	18 BY THE WITNESS: 11:01
19 A. I do. 10:58	19 A. Yes, I see that. 11:01
20 Q. Okay. So -- and do you recognize her to 10:58	20 BY MR. KOPEL: 11:01
21 be the inventor of the product? 10:58	21 Q. Do you disagree with Ms. Feuerstein? 11:01
22 A. It's -- somewhere in this deposition she 10:59	22 A. I do. 11:01
23 claims to be, yes. 10:59	23 My basis for that is that the words 11:01
24 Q. Okay. And do you also recognize that she 10:59	24 in the product literature prevail. 11:01
25 had supervisory approval over the language used on 10:59	25 Q. Okay. But would you agree, based on this 11:01
Page 58	Page 60
1 the label? 10:59	1 testimony, that that was the intention of the 11:01
2 MR. OSTOJIC: Object to form, foundation. 10:59	2 statement: "Drives pests out?" 11:01
3 BY THE WITNESS: 10:59	3 MR. OSTOJIC: Object. Form, foundation. 11:01
4 A. I don't know that I saw that anywhere in 10:59	4 Asked and answered. Also may cause for him to 11:02
5 there. Could you point me to it maybe? 10:59	5 speculate as to what Feuerstein's intent was or was 11:02
6 MR. KOPEL: Sure. 10:59	6 not. 11:02
7 BY MR. KOPEL: 10:59	7 To the extent you can answer the 11:02
8 Q. Please take a look at Page 53, Lines 6 10:59	8 question, go ahead. 11:02
9 through 8. 10:59	9 THE WITNESS: Repeat the question, please. 11:02
10 Question, "And you had a role in 10:59	10 (WHEREUPON, the record was 11:02
11 approval each of these pieces of artwork?" 10:59	11 read by the reporter.) 11:02
12 Answer, "Yes." 10:59	12 MR. OSTOJIC: I'm sorry. Objection. I need 11:02
13 A. Then the answer is yes. 10:59	13 a clar -- are you talking about the intent of the 11:02
14 Q. Okay. And does this now change your 10:59	14 words or the intent of Ms. Feuerstein in that 11:02
15 opinion on what is meant when the product says, 10:59	15 question? 11:02
16 "drive pests out?" 10:59	16 MR. KOPEL: I'm not sure there's a 11:02
17 A. It still does not. 10:59	17 distinction, but if there's a distinction, you can go 11:02
18 Q. Why not? 10:59	18 ahead and say so. 11:02
19 A. Because the words "out of the home" are 10:59	19 BY THE WITNESS: 11:02
20 not written in the product literature anywhere. 11:00	20 A. You can only -- I can only go by what's 11:02
21 Q. Now, do you see here that the person 11:00	21 written here. I -- I cannot get into 11:02
22 involved in making that statement interpreted them to 11:00	22 Ms. Feuerstein's mind to know whether she intended 11:03
23 mean that it drives pests out from the home? 11:00	23 one thing or another. I can only reread what she 11:03
24 MR. OSTOJIC: Object to form, foundation. 11:00	24 says. 11:03
25 Asked and answered. It's also argumentative. 11:00	25
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1 BY MR. KOPEL:	11:03	1 ahead and answer.	11:05
2 Q. But this is how she interprets her own	11:03	2 THE WITNESS: I have lost the place -- what	11:05
3 statement; correct?	11:03	3 page are we looking at, pages plural?	11:05
4 MR. OSTOJIC: Object. Form, foundation. May	11:03	4 MR. KOPEL: I am referring to Page 58.	11:05
5 call for speculation as to what the subjective mind	11:03	5 THE WITNESS: Oh, I'm off. Okay. Let me go	11:05
6 of Feuerstein is thinking.	11:03	6 back to that.	11:05
7 Frankly, her deposition is --	11:03	7 MR. KOPEL: And perhaps it would be	11:05
8 MR. KOPEL: Counsel, please stop making	11:03	8 helpful -- counsel has stated his objection, and I	11:05
9 speaking objections.	11:03	9 know it's hard to remember the question after the	11:05
10 MR. OSTOJIC: I'm not, but it's conflicting,	11:03	10 objections are made, so I would be happy to stipulate	11:05
11 and we're going over the same subject.	11:03	11 that the objections counsel has made already will	11:05
12 Asked and answered.		12 apply and perhaps the court reporter can reread the	11:05
13 To the extent you can answer the	11:03	13 question and witness's answer.	11:05
14 question, you can go ahead and answer.	11:03	14 THE WITNESS: Yes, that would -- sorry --	11:05
15 BY THE WITNESS:	11:03	15 that would be helpful.	11:05
16 A. I just repeat what I said.	11:03	16 (WHEREUPON, the record was	11:05
17 I can only go by what's written	11:03	17 read by the reporter.)	11:06
18 here.	11:03	18 MR. OSTOJIC: Same objections.	11:06
19 BY MR. KOPEL:		19 BY THE WITNESS:	11:06
20 Q. And do you remember what my question was?	11:03	20 A. Her answer, Page 58, Line 7. "It is the	11:06
21 A. I think your question -- you can tell me	11:03	21 repeller drive pests out from the home."	11:06
22 if I'm wrong -- was did she intend -- was her	11:03	22 So -- question, "Oh, so it means it	11:06
23 intention in those words that it would drive pests	11:03	23 drives pests out from the home?"	11:06
24 out of a house.	11:03	24 "Right, right" was the answer.	11:06
25 Q. So it was -- that wasn't exactly my most	11:03	25	
Page 62		Page 64	
1 recent question.	11:03	1 BY MR. KOPEL:	11:06
2 A. Okay.	11:03	2 Q. Is that a yes?	11:06
3 Q. I -- and, counsel, I know, has a lot of	11:03	3 MR. OSTOJIC: Same objections.	11:06
4 objections regarding my questions, so please try to	11:04	4 BY THE WITNESS:	11:06
5 listen carefully to the question because sometimes it	11:04	5 A. I can't get into Ms. Feuerstein's mind	11:06
6 can get confusing. When counsel makes a lot of	11:04	6 and what she intended. It's clearly written here,	11:06
7 objections, it's hard to remember exactly what the	11:04	7 Lines 7 and 8, the answer, "It is the repeller drive	11:06
8 question was.	11:04	8 the pests out from the home."	11:06
9 Based on this testimony would you	11:04	9 BY MR. KOPEL:	11:07
10 agree that the interpretation of the words drives	11:04	10 Q. Can you just turn back to Page 57	11:07
11 pests out -- okay. Based on -- let me rephrase the	11:04	11 briefly, please. I'm looking at Ms. Feuerstein's	11:07
12 question.	11:04	12 testimony, Lines 19 through 21, "Meaning don't do any	11:07
13 Based on this testimony, would you	11:04	13 work and then ultrasonic work used to drive pests	11:07
14 agree that the person who made the statement drives	11:04	14 out."	11:07
15 pests out interprets that statement to mean drives	11:04	15 Do you see that?	11:07
16 pests out from the home?	11:04	16 A. Yes.	11:07
17 MR. OSTOJIC: Objection. Ms. Feuerstein's	11:04	17 Q. Okay. Would you agree that finding and	11:07
18 testimony stands on its own, it's a written document.	11:04	18 sealing up all entry points within your house that an	11:07
19 If you want, you can go through the entire deposition	11:04	19 insect can get to would constitute doing work?	11:07
20 testimony, but it's very inappropriate to ask a	11:04	20 A. Yes, which is consistent with the product	11:07
21 witness to seek to try to determine the intent of	11:04	21 literature.	11:08
22 another person within their mind interpreting a	11:05	22 Q. Is work required in order to -- in order	11:08
23 phrase.	11:05	23 for the pest repellers to be effective?	11:08
24 Also it's been asked and answered;	11:05	24 MR. OSTOJIC: Object to form.	11:08
25 but to the extent you understand the question, go	11:05	25	
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1 BY THE WITNESS: 11:08	1 spiders, and roaches are exposed to ultrasonic sound 11:27
2 A. It's circumstantial. I would guess in 11:08	2 waves for extended periods of time, then they will 11:27
3 some cases, yes; in some cases, no. 11:08	3 become habituated to the sound and no longer be 11:27
4 The product literature says the 11:08	4 repelled? 11:27
5 repeller helps -- I should look at it to be sure I'm 11:08	5 MR. OSTOJIC: Object form as to will. 11:27
6 quoting exactly, but the operative word is it helps 11:08	6 But go ahead. 11:27
7 repel pests, and so other things may be necessary to 11:08	7 BY THE WITNESS: 11:27
8 effect the -- got the effect you're -- the customer 11:08	8 A. I do not take that as blanket statement. 11:27
9 desires. 11:08	9 I'd have to see evidence of a 11:28
10 Q. And it also says, "plug it in, drive 11:08	10 particular ant, particular spider, particular roach. 11:28
11 pests out"; correct? 11:08	11 BY MR. KOPEL: 11:28
12 A. It does, yes. 11:08	12 Q. Do you have any opinion as to whether 11:28
13 Q. It doesn't say, "Plug it in and do a 11:08	13 habituation ever occurs with regards to exposure of 11:28
14 bunch of work to drive pests out"; right? 11:08	14 ultrasonic sound waves to ants, spiders, or roaches? 11:28
15 A. It does not. 11:08	15 MR. OSTOJIC: Object to form. 11:28
16 Q. Are you familiar with the concept of 11:08	16 BY THE WITNESS: 11:28
17 habituation? 11:09	17 A. Yes. 11:28
18 A. Yes. 11:09	18 BY MR. KOPEL: 11:28
19 Q. What is it? 11:09	19 Q. What's your opinion? 11:28
20 A. Habituation is a behavior -- as I would 11:09	20 A. The opinion is if these insects, 11:28
21 describe it -- a behavioral response of an organism, 11:09	21 including spiders, are exposed continuously to the 11:28
22 a response to some stimulus that it becomes accustom 11:09	22 same ultrasonic frequency decibel, everything exactly 11:28
23 to, and the -- the effect of that stimulus decreases 11:09	23 the same, it's possible that they could habituate to 11:28
24 over time as a result of -- of it being in the 11:09	24 that particular sound -- well, to that particular -- 11:28
25 presence of the stimulus. 11:09	25 well, sounds. 11:29
Page 66	Page 68
1 MR. OSTOJIC: Counsel, if we're on a place -- 11:09	1 Q. What's the basis for your opinion? 11:29
2 I know you went to habituation for the depo. Can we 11:09	2 A. Education, background in entomology, and 11:29
3 take just two minutes so I can make a quick call on 11:09	3 having classes, and reading texts about habituation. 11:29
4 something else? 11:09	4 Q. Now, when I'm talking about specifically 11:29
5 MR. KOPEL: Yes. 11:09	5 habituation to ultrasonic technology, can you 11:29
6 MR. OSTOJIC: Okay. 11:09	6 identify any studies or a text or any other sources 11:29
7 THE VIDEOGRAPHER: The time is now 11:12 a.m. 11:09	7 on which you're basing your opinion? 11:29
8 This is the end of Media No. 1. 11:09	8 A. It's a general concept that is well borne 11:29
9 We're off the record. 11:10	9 out, and I don't have any -- any references at my 11:29
10 (WHEREUPON, a recess was 11:10	10 disposal right now to show you. 11:29
11 had.)	11 Q. Have you seen any evidence to suggest 11:29
12 THE VIDEOGRAPHER: The time is now 11:29 a.m. 11:26	12 that habituation would not occur when using the 11:29
13 This is the beginning of Media 2. 11:26	13 Bell + Howell ultrasonic pest repellers in a 11:29
14 We're back on the record. 11:26	14 residence? 11:29
15 BY MR. KOPEL: 11:26	15 MR. OSTOJIC: Object to form. 11:29
16 Q. Dr. Borth, what does habituation mean in 11:26	16 THE WITNESS: That's -- that's a long 11:30
17 the context of ultrasonic pest repelling technology? 11:27	17 question -- 11:30
18 MR. OSTOJIC: Object to form. 11:27	18 MR. KOPEL: Okay. 11:30
19 BY THE WITNESS: 11:27	19 THE WITNESS: -- could you repeat it or 11:30
20 A. If the court reporter would reread the 11:27	20 rephrase. 11:30
21 answer to your last question, I would say that's what 11:27	21 MR. KOPEL: Can please repeat the question? 11:30
22 it means in the context of ultrasonic pest repellers. 11:27	22 (WHEREUPON, the record was 11:30
23 MR. KOPEL: That's not necessary. 11:27	23 read by the reporter.) 11:30
24 BY MR. KOPEL: 11:27	24 MR. OSTOJIC: Same objection. 11:30
25 Q. Do you believe that if -- if ants, 11:27	25
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1 BY THE WITNESS: 11:30	1 would expect habituation to occur when using a 11:33
2 A. That goes to prove something that doesn't 11:30	2 ultrasonic pest repeller with regards to ants, 11:33
3 exist, which -- you know, when you design an 11:30	3 spiders, and roaches? 11:33
4 experiment, it's very hard to design something that 11:30	4 MR. OSTOJIC: Object to form. 11:33
5 would prove something doesn't exist. 11:30	5 BY THE WITNESS: 11:33
6 You -- the opposite is what most 11:30	6 A. I can give you a -- a hypothetical 11:33
7 scientists would show, not what does not exist. 11:30	7 because I've not tested it. 11:33
8 BY MR. KOPEL: 11:30	8 MR. KOPEL: Okay. Great. 11:33
9 Q. Would you expect that habituation might 11:30	9 BY THE WITNESS: 11:33
10 occur when using an ultrasonic pest repeller in a 11:30	10 A. But the hypothetical would be if you have 11:33
11 residential environment? 11:31	11 a container, a -- contained insects that cannot 11:33
12 A. Again, it depends on the specific -- the 11:31	12 escape and they are subjected to the same frequency 11:33
13 specifics of the ultrasonic pest repeller, the 11:31	13 continuously, they may -- it's not definite, they may 11:34
14 specifics -- the details of the residence or room, 11:31	14 develop habituation behavior over time. 11:34
15 whatever you said. 11:31	15 BY MR. KOPEL: 11:34
16 Q. Okay. So would you expect that 11:31	16 Q. Can you please turn to Exhibit 1, that's 11:34
17 habituation would occur when using Bell + Howell 11:31	17 your initial expert report, Page 20. 11:34
18 ultrasonic pest repellers in a residential 11:31	18 A. Okay. 11:34
19 environment? 11:31	19 Q. And I am referencing Opinion 14. 11:34
20 A. No. 11:31	20 Do you see Opinion 14 on Page 20? 11:34
21 Q. Why not? 11:31	21 A. Of my initial -- oh, I'm looking at the 11:34
22 A. Because I have read that the frequency -- 11:31	22 wrong report. Sorry. 11:35
23 the electronics within the Bell + Howell ultrasonics 11:31	23 Okay. 11:35
24 was variable, and it's swept through a range of 11:31	24 Q. And Opinion 14 reads: "Based upon 11:35
25 frequencies. It's not -- and not continuous. 11:31	25 References 4 to 8, 10, 13, I reject the allegation 11:35
Page 70	Page 72
1 Q. Have you seen literature showing that use 11:31	1 that these devices do not repel pests." 11:35
2 of sweeping frequencies prevents habituation from 11:31	2 Do you see that? 11:35
3 occurring? 11:31	3 A. Yes. 11:35
4 A. I have not; but, again, with what 11:31	4 Q. Okay. And 4 to 8 are Chinese testing of 11:35
5 habituation is based upon, if you remove the 11:31	5 the Bell + Howell ultrasonic devices; correct? 11:35
6 stimulus, you change the stimulus, you do anything 11:32	6 MR. OSTOJIC: Object to form. 11:35
7 differently, you're going to delay -- at least delay 11:32	7 BY THE WITNESS: 11:35
8 and maybe eliminate the -- the phenomenon of 11:32	8 A. Yes. 11:35
9 habituation. 11:32	9 BY MR. KOPEL: 11:35
10 Q. In absence of the sweeping frequencies, 11:32	10 Q. And those -- those tests are contained 11:35
11 would you expect habituation to occur with regards to 11:32	11 within Exhibits Borth 3, 4, 5, and the document which 11:36
12 ants, spiders, and roaches in a residential 11:32	12 I handed to you, which was previously marked as 11:36
13 environment when using the Bell + Howell devices? 11:32	13 Exhibit 13; correct? 11:36
14 A. I cannot -- I cannot say that, I wouldn't 11:32	14 A. Yes. 11:36
15 say that, because I don't have the details behind to 11:32	15 Q. Okay. And Reference 13 is referring to a 11:36
16 answer that question confidently. 11:32	16 1984 study performed by Ballard, Gold and T. Decker; 11:36
17 Q. What additional details would you need? 11:32	17 correct? 11:36
18 A. I would need to know the -- the physics 11:32	18 A. Correct. 11:36
19 of -- even though I'm not a physics expert, I would 11:32	19 Q. And these are -- and one last thing. 11:36
20 need to know whether the sound was continuous or not. 11:32	20 Reference 10 is a chi-square test analysis that you 11:36
21 I would need to know the -- what do you call it -- 11:33	21 performed on References 4 through 8; correct? 11:36
22 the dimensions, how the room is set up, need to know 11:33	22 A. Correct. 11:36
23 the insects that you're talking about, all the 11:33	23 Q. And these -- these seven sources are what 11:36
24 details are necessary. 11:33	24 you are basing your opinion on that these devices do 11:37
25 Q. Can you give me an example of when you 11:33	25 repel pests; correct? 11:37
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1 A. In part, yes. 11:37	1 it goes into your mind, and everything that you -- 11:39
2 Q. What do you mean by in part? 11:37	2 that you absorb goes into making opinions. 11:39
3 A. Well, I base my opinion on everything, 11:37	3 Q. Did you consider those documents in 11:39
4 totality of everything I looked at, which would 11:37	4 making your opinions in this case? 11:39
5 include everything on this list. 11:37	5 A. No. What I've listed here is certainly 11:39
6 Q. Okay. What else on this list supports 11:37	6 sufficient to draw my opinions from. 11:39
7 that finding? 11:37	7 Q. Okay. I'd like to actually talk with you 11:39
8 A. Everything. Referenced -- in total, 11:37	8 about these Chinese studies first, please; and the 11:40
9 References 1 through 23. Everything I read goes into 11:37	9 first one I'd like to please discuss is dated 11:40
10 making an opinion. 11:37	10 March 23, 2012, and I believe that should be 11:40
11 Q. I understand, but, you know, taken by 11:37	11 contained within the exhibit previously marked as 13. 11:40
12 itself, did you find evidence in the First Amended 11:37	12 And let me know if you're able to 11:40
13 Class Action Complaint that these devices are 11:37	13 locate that, please. 11:40
14 effective to repel pests? 11:37	14 A. I have Exhibit 13, yeah. 11:40
15 A. First Amended Class Action -- okay. I 11:37	15 Q. And I'm looking -- I'm specifically 11:40
16 have to ask to be repeated again. Sorry. 11:37	16 referencing an SGS test performed on ants, spiders, 11:40
17 Q. Sure. 11:38	17 and roaches dated March 23, 2012. 11:41
18 Taken by itself, did you find any 11:38	18 Please let me know if you can locate 11:41
19 evidence within the First Amended Class Action 11:38	19 that, and I'm happy to give you the report number if 11:41
20 Complaint that the Bell + Howell devices are 11:38	20 that's helpful. 11:41
21 effective to repel pests? 11:38	21 A. Well, in -- in this list of efficacy test 11:41
22 A. I don't know -- I'm sorry. But I don't 11:38	22 reports, which one is it? The first one that has 11:41
23 know how you connect the Complaint. Maybe it's 11:38	23 insects from SGS? What was -- 11:41
24 semantics, but I'm not understanding. 11:38	24 Q. It's a report number ending with the 11:41
25 Q. Well, the only reason I'm bringing up the 11:38	25 numbers 3439. 11:41
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1 Complaint is that it's No. 1 on your list of 11:38	1 A. Yes, okay. I have that. 11:41
2 references here. 11:38	2 Q. Okay. Now, you've seen this before; 11:41
3 A. Okay. Sure. 11:38	3 correct? 11:41
4 Q. And you said that you relied on all of 11:38	4 A. Yes. 11:41
5 these? 11:38	5 Q. This is one of the seven references from 11:41
6 A. Yes, yes. 11:38	6 Opinion 14 in your initial report; correct? 11:41
7 Q. But I'm trying to make a determination of 11:38	7 A. Yes. 11:41
8 how you could have gotten that from number -- 11:38	8 Q. Okay. Now, this looks like it was 11:41
9 Reference No. 1? 11:38	9 prepared by someone named Mei, M-e-i, last name L-v. 11:42
10 A. Oh, well, I'm -- what I meant by that is 11:38	10 Do you see that? 11:42
11 that everything I read goes into my brain and is used 11:38	11 A. I see that. 11:42
12 to draw -- to make an opinion. 11:38	12 Q. Who is that? 11:42
13 Q. Okay. So are -- are you relying in your 11:38	13 A. I have no idea. 11:42
14 opinion on any other -- on any other studies in 11:38	14 Q. Do you know what her qualifications are? 11:42
15 making -- in making your opinion that you reject the 11:38	15 A. I do not. 11:42
16 allegation that these devices do not repel pests? 11:39	16 Q. Is that relevant? 11:42
17 MR. OSTOJIC: Object to form. 11:39	17 A. It could be. 11:42
18 BY THE WITNESS: 11:39	18 Q. Does it concern you that you're 11:42
19 A. I have experience in the Black & Decker 11:39	19 reviewing -- you're relying on a test that was 11:42
20 case which required me to read things that are not 11:39	20 performed by someone whose qualifications you're 11:42
21 included here. 11:39	21 unaware of? 11:42
22 BY MR. KOPEL: 11:39	22 A. Not really. 11:42
23 Q. Are you basing your opinions on those 11:39	23 Q. Why not? 11:42
24 documents? 11:39	24 A. Because I have data here that -- based on 11:42
25 A. No. But, as I said, everything I read -- 11:39	25 what's written with their protocols, their summary; 11:42
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1 and the counts that they made, to me, appear -- I 11:42	1 opinion that this test result is germane to all 11:45
2 mean they were counts, they were raw observations. 11:43	2 models of Bell + Howell pest repellers? 11:45
3 Q. Oh, go ahead. I didn't mean to interrupt 11:43	3 A. Are you leading -- I can't ask you a 11:45
4 you. 11:43	4 question. 11:45
5 A. I would -- I mean it's an assumption, but 11:43	5 Q. Well, if you would like a clarification, 11:45
6 you would think that Mei Lv knows what a spider is an 11:43	6 go ahead. 11:45
7 can count them correctly; and ants and spiders -- I 11:43	7 A. Yes, please, try to clarify. 11:45
8 mean roaches and ants the same -- the same. 11:43	8 Q. Sure. 11:45
9 Q. Do you see on the first page here it 11:43	9 My understanding, based on your 11:45
10 says, "Style No." It says, "Nil"? 11:43	10 testimony, and you're free to correct me if I'm 11:46
11 A. Style number? 11:43	11 wrong, is that you don't know whether this model 11:46
12 Yes, I see that. 11:43	12 utilized static or sweeping frequencies; is that 11:46
13 Q. Okay. So do you know what model 11:43	13 correct? 11:46
14 Bell + Howell ultrasonic pest repellers were used in 11:43	14 A. That's correct. 11:46
15 this test? 11:43	15 Q. Okay. Is that -- is that relevant to 11:46
16 A. Let me refer -- most of these details for 11:43	16 your determination of whether this data can be 11:46
17 these are included in my Reference 10. 11:43	17 extended to all models of the Bell + Howell pest 11:46
18 Can I look at that? Because it 11:43	18 repellers? 11:46
19 would -- 11:43	19 A. Not really, no. 11:46
20 Q. Sure. Look at whatever you need. 11:43	20 Q. Why not? 11:46
21 A. -- help me more quickly answer. 11:43	21 A. Because the -- under the conditions they 11:46
22 Q. You have that; right? You have 11:43	22 tested we have the results, and so the -- the 11:46
23 Reference 10 there? 11:43	23 repeller that they tested gave us the results they 11:46
24 A. I do, yes. 11:44	24 gave us. 11:46
25 Q. Okay. Great. 11:44	25 Q. Now, let's say hypothetically that they 11:46
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1 A. So we're -- that would be No. 3. 11:44	1 used a sweeping frequency model in this test. 11:46
2 Yes, my -- yes, it says, "Model 11:44	2 A. Uh-huh. 11:46
3 tested was not stated." That's how I worded it. 11:44	3 Q. Would you be comfortable extending the 11:46
4 Q. Now, are you relying on this test in 11:44	4 data from this test to models that do not have 11:46
5 rendering an opinion as to all models of the 11:44	5 sweeping frequencies? 11:46
6 Bell + Howell ultrasonic pest repellers? 11:44	6 A. I believe that the basics of ultrasonic 11:47
7 A. Yes. 11:44	7 technology are going to give you the results that you 11:47
8 Q. Did this model have sweeping frequencies, 11:44	8 have in this -- under these conditions whether it is 11:47
9 or was it static? 11:44	9 sweeping frequency or not. 11:47
10 A. I can make the assumptions from the 11:44	10 Q. Do you remember testifying earlier that 11:47
11 Debbie Feuerstein deposition that they -- they were 11:45	11 you thought sweeping frequencies might help prevent 11:47
12 variable or sweeping. 11:45	12 habituation? 11:47
13 Q. Is it -- is it your understanding that 11:45	13 A. I do. 11:47
14 all models of Bell + Howell ultrasonic pest repellers 11:45	14 Q. Okay. So can you conceive of situations 11:47
15 are sweeping? 11:45	15 where sweeping frequencies might be more effective 11:47
16 A. I believe from reading the deposition 11:45	16 than static frequencies? 11:47
17 that there was a point in time when Bell + Howell 11:45	17 MR. OSTOJIC: Object to form. 11:47
18 improved -- I think she used the word improved their 11:45	18 BY THE WITNESS: 11:47
19 design to move into sweeping frequencies. 11:45	19 A. Well, the reason I believe that sweeping 11:47
20 The time, the date, I don't know 11:45	20 frequencies were developed was to increase the 11:47
21 when that was. 11:45	21 efficacy of the unit. 11:47
22 Q. Do you know if that was before or after 11:45	22 BY MR. KOPEL: 11:48
23 March of 2012? 11:45	23 Q. What -- what -- what information do you 11:48
24 A. I cannot say with certainty. 11:45	24 need to know in order to make a determination as to 11:48
25 Q. Okay. Is that inquiry relevant to your 11:45	25 whether or not this data can be used to make an 11:48
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1 opinion on other models of Bell + Howell repellers? 11:48	1 sheet for these devices? 11:50
2 MR. OSTOJIC: Wait. I'm sorry. Can you 11:48	2 A. I did for one of them that was provided 11:50
3 repeat that question? 11:48	3 by -- by plaintiff -- or defendants. Sorry. 11:50
4 MR. KOPEL: Absolutely. 11:48	4 Q. Okay. Was that the same model device as 11:50
5 MR. OSTOJIC: Well -- 11:48	5 pictured here? 11:50
6 MR. KOPEL: Sure. I'll repeat it. No 11:48	6 A. I'd have to look. I can check it out if 11:51
7 problem. 11:48	7 you want me to take the time. 11:51
8 BY MR. KOPEL: 11:48	8 Q. Well, let's take a step back. 11:51
9 Q. Do you think that any tests ascertaining 11:48	9 You don't know what model device was 11:51
10 the efficacy of ultrasound technology in general can 11:48	10 use here; right? 11:51
11 be used as evidence of the efficacy of any ultrasound 11:48	11 A. No. 11:51
12 device? 11:48	12 Q. Okay. So is there any way to determine 11:51
13 MR. OSTOJIC: Object to form, foundation. 11:48	13 whether it was the same model or not? 11:51
14 But go ahead. 11:49	14 A. No. Unless -- no. 11:51
15 BY THE WITNESS: 11:49	15 Q. Okay. Do you know if this model of 11:51
16 A. Yes. 11:49	16 Bell + Howell ultrasonic pest repeller was ever even 11:51
17 BY MR. KOPEL: 11:49	17 sold to the general public? 11:51
18 Q. So as long as it's ultrasound, than it 11:49	18 A. I would assume so or they wouldn't be 11:51
19 is -- it is relevant to making a determination as to 11:49	19 testing it. 11:51
20 whether Bell + Howell devices are effective? 11:49	20 Q. You don't think companies can test things 11:51
21 MR. OSTOJIC: Object to form, foundation. 11:49	21 that have not been released to the general public? 11:51
22 But go ahead. 11:49	22 A. They can, and I have experience with 11:51
23 BY THE WITNESS: 11:49	23 those. 11:51
24 A. There are details underlying 11:49	24 Q. Okay. And so let's go back to my 11:51
25 ultrasound -- ultrasonic technology that that would 11:49	25 original question. 11:51
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1 be necessary to know before I could make a 11:49	1 Do you know whether this model of 11:51
2 generalization, and I generally don't make 11:49	2 Bell + Howell ultrasonic pest repeller that's being 11:51
3 generalizations. 11:49	3 tested in Report No. SZXWT00603439 was ever sold to 11:51
4 BY MR. KOPEL: 11:49	4 the general public? 11:51
5 Q. Okay. So what are those details? 11:49	5 A. Without the model number, I cannot be 11:51
6 A. The kilohertz, the decibels, number of 11:49	6 sure. 11:51
7 speakers in the unit, the directional attitude of 11:49	7 Q. So you don't know what the frequency of 11:51
8 those speakers, the case itself, everything about it, 11:49	8 this device was; correct? 11:51
9 everything about the unit. 11:49	9 A. I would have to rely on Debbie 11:51
10 Q. Okay. What was the frequency of the 11:49	10 Feuerstein's deposition and the product spec sheet 11:52
11 devices tested here? 11:49	11 that I inspected, because she said that all the 11:52
12 A. I would have to really look at a lot of 11:49	12 models were similar. 11:52
13 documents, and the documentation may not be there. 11:50	13 I'm paraphrasing what she said, 11:52
14 Q. Other than this test right here, what 11:50	14 but -- and so the one product spec sheet that I 11:52
15 else would -- do you think would give you that 11:50	15 looked at I can reference, and then I can also bring 11:52
16 information? 11:50	16 up for the first time Dr. Mankin's work and -- 11:52
17 MR. OSTOJIC: Object to form. 11:50	17 Q. Okay. Do you know if Dr. Mankin tested 11:52
18 BY MR. KOPEL: 11:50	18 this model? 11:52
19 Q. Other than this test labeled as Report 11:50	19 A. I do not know that. 11:52
20 No. SZXWT00603439, what other document do you think 11:50	20 Q. Does that concern you? 11:52
21 might give you that information? 11:50	21 A. Well, not actually, no. 11:52
22 A. In my experience a document that is 11:50	22 Q. Why not? 11:52
23 commonly referred to as a product specification sheet 11:50	23 A. Because these are ultrasonic repellers 11:52
24 would include that information. 11:50	24 and they're sold as such and I have faith I guess you 11:52
25 Q. Did you review the product specification 11:50	25 could say that it's producing ultrasonic sound or you 11:52
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1 wouldn't see the results that you do. 11:52	1 BY MR. KOPEL: 11:54
2 Q. And as long as it's ultrasonic sound, 11:52	2 Q. Even though those devices have fewer 11:54
3 it's all the same? 11:53	3 speakers than the device here? 11:54
4 MR. OSTOJIC: Object to form, foundation. 11:53	4 A. If it works, it works. 11:54
5 BY THE WITNESS: 11:53	5 MR. OSTOJIC: Object to form. 11:54
6 A. Of course not. 11:53	6 BY MR. KOPEL: 11:54
7 BY MR. KOPEL: 11:53	7 Q. So is it relevant how many speakers a 11:54
8 Q. Okay. So let's go back to my question 11:53	8 device has? 11:54
9 before. 11:53	9 A. I think it is. 11:54
10 Does it concern you that you didn't 11:53	10 Q. Okay. If it's relevant, then how are you 11:54
11 know the frequency or amplitude of these device -- 11:53	11 comfortable, nonetheless, extending these results 11:54
12 this device? 11:53	12 with other devices which may potentially have a 11:55
13 A. It would be supplemental information. It 11:53	13 different amount of speakers? 11:55
14 doesn't concern me in making my opinion. 11:53	14 MR. OSTOJIC: Object to form, foundation. 11:55
15 Q. Why not? 11:53	15 Argumentative. 11:55
16 A. Because, again, I'm assuming that it's 11:53	16 But go ahead. 11:55
17 ultrasound. The results bear out that there was an 11:53	17 BY THE WITNESS: 11:55
18 effect of the repeller, and so it doesn't concern me. 11:53	18 A. Because I am looking at the raw data that 11:55
19 Q. How many speakers does this device 11:53	19 were produced in an experiment testing the repellency 11:55
20 contain? 11:53	20 of an ultrasonic device, and whether those data or 11:55
21 A. I do not know. 11:53	21 whether the device has two speakers or one speaker, 11:55
22 Q. Does that concern you? 11:53	22 it -- it -- I don't need to know that to interpret 11:55
23 A. Well, not insofar as the counts that 11:53	23 and to analyze the data that came out -- the specimen 11:55
24 they -- that they made, no -- well, I don't 11:53	24 count. 11:55
25 understand why it would. 11:53	25
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1 Q. Does it matter how many speakers a device 11:53	1 BY MR. KOPEL: 11:55
2 has in terms -- 11:53	2 Q. And I understand that you can interpret 11:55
3 A. It can. 11:53	3 and analyze the data that came out, but my question 11:55
4 Q. Let me just finish my question. Sorry. 11:53	4 is something different than that. 11:55
5 A. Sorry. 11:53	5 My question is: Are you comfortable 11:55
6 Q. Does it matter how many speakers a device 11:53	6 extending this data to models that have a different 11:55
7 has in terms of ascertaining its efficacy? 11:53	7 number of speakers than this model? 11:56
8 A. It could. 11:54	8 MR. OSTOJIC: Object to form, foundation. 11:56
9 Q. Okay. And let's say this device had two 11:54	9 Asked and answered. 11:56
10 speakers, would you feel comfortable saying devices 11:54	10 Go ahead. 11:56
11 with one speaker are effective based on the data 11:54	11 BY THE WITNESS: 11:56
12 produced in this test? 11:54	12 A. Yes. 11:56
13 A. I would say that the head count or the 11:54	13 BY MR. KOPEL: 11:56
14 specimen count that they made is what I'm relying -- 11:54	14 Q. How about speaker size? What was the 11:56
15 is what I'm basing my opinion on. 11:54	15 size of these speakers? 11:56
16 MR. KOPEL: Can you repeat my question, 11:54	16 A. I do not know. 11:56
17 please? 11:54	17 Q. Okay. Have you compared the size of 11:56
18 (WHEREUPON, the record was 11:54	18 these speakers to other Bell + Howell models? 11:56
19 read by the reporter.) 11:54	19 A. No. 11:56
20 MR. OSTOJIC: Object to form. 11:54	20 Q. Why not? 11:56
21 Go ahead. 11:54	21 A. My purpose for this -- for this role did 11:56
22 BY THE WITNESS: 11:54	22 not include experimentation with different devices. 11:56
23 A. If the experiment bears out, yes, I would 11:54	23 Q. Now, let's say other Bell + Howell 11:56
24 be comfortable. 11:54	24 devices had different size speakers than these, would 11:56
25	25 you still be comfortable using these -- the data 11:56
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1 produced from this test in rendering an opinion on 11:56	1 You don't know what the speaker size 11:58
2 those other models? 11:56	2 of this model was; correct? 11:58
3 A. Yes. 11:56	3 A. That's correct. 11:58
4 Q. How about speaker direction? Do you have 11:56	4 Q. But you're still using this data to 11:58
5 any data on that for this model? 11:56	5 render an opinion on other models that may or may not 11:58
6 A. No. 11:56	6 have different speaker sizes? 11:58
7 Q. Okay. Is that relevant? 11:57	7 MR. OSTOJIC: Object. Asked and answered, 11:58
8 A. I would think so. 11:57	8 but go ahead. 11:58
9 Q. Okay. 11:57	9 BY THE WITNESS: 11:58
10 A. And I've said that in the report. 11:57	10 A. I am. 11:58
11 Q. Okay. So if it's relevant, why didn't 11:57	11 BY MR. KOPEL: 11:58
12 you make an effort to determine what the speaker 11:57	12 Q. And you don't know how many speakers this 11:58
13 direction was? 11:57	13 device has; correct? 11:58
14 A. Because, again, I -- my job was to look 11:57	14 A. I do not. 11:59
15 at the data that were produced and determine if it 11:57	15 Q. But you're still using the data from this 11:59
16 supported the claims made on the product literature. 11:57	16 test to render an opinion on models which may or may 11:59
17 Q. Even -- even if the product literature is 11:57	17 not have different amounts of speakers -- 11:59
18 on a device that has a speaker with a different 11:57	18 MR. OSTOJIC: Same objections. 11:59
19 direction or a different size? 11:57	19 BY MR. KOPEL: 11:59
20 MR. OSTOJIC: Objection. Misstates the 11:57	20 Q. -- correct? 11:59
21 evidence, but go ahead and answer. 11:57	21 A. My opinions are -- are on Bell + Howell 11:59
22 BY THE WITNESS: 11:57	22 repellers, so, yes, I mean that -- that's the extent 11:59
23 A. I think you gave me a -- you said even 11:57	23 of the opinion. 11:59
24 if, and I need to -- you need to rephrase. 11:57	24 Q. Okay. Now, I think in your criticism of 11:59
25 MR. KOPEL: Sure. Yeah, yeah. 11:57	25 Dr. Potter's work, you said that studies from 11:59
Page 90	Page 92
1 BY MR. KOPEL: 11:57	1 peer-reviewed literature were not extendable to the 11:59
2 Q. Does that hold true even if the product 11:57	2 Bell + Howell devices because they weren't -- 11:59
3 literature you're referring to is -- is -- contains a 11:57	3 potentially had different speaker sizes. 11:59
4 product that has a different size speaker, different 11:58	4 Do you recall saying that? 11:59
5 number of speakers, different speaker direction? 11:58	5 A. That was one of the examples, yeah. 11:59
6 MR. OSTOJIC: Object to form, foundation, 11:58	6 Q. Okay. How is this different, what you're 11:59
7 also may misstate the evidence. 11:58	7 doing here from what you're criticizing Dr. Potter 11:59
8 But go ahead. 11:58	8 from doing? 11:59
9 BY THE WITNESS: 11:58	9 A. Because I am looking at the data that was 11:59
10 A. Yeah, I -- when you say product 11:58	10 supplied to me, and I analyzed it, I rendered an 11:59
11 literature, I need to know are you talking back to 11:58	11 opinion based on these data. 11:59
12 the published tests, the research that we -- 11:58	12 Q. And how is it different from what 12:00
13 BY MR. KOPEL: 11:58	13 Dr. Potter did? 12:00
14 Q. I just used the words product literature 11:58	14 A. Well, Dr. Potter's experiments -- 12:00
15 because you did. 11:58	15 Q. I'm sorry to interrupt you. You might 12:00
16 A. Okay. 11:58	16 have misunderstood the question. 12:00
17 Q. So if you want me to take a step back, 11:58	17 I'm talking about Dr. Potter's use 12:00
18 I'm happy to. 11:58	18 of published studies regarding non Bell + Howell 12:00
19 A. Yeah, that might help, because I'm 11:58	19 repellers, all right, and I believe you criticized 12:00
20 confused. 11:58	20 him for using that data to render an opinion on the 12:00
21 Q. Okay. So -- and I'll take a step back, 11:58	21 efficacy of Bell + Howell repellers; is that correct? 12:00
22 and I'm sorry, because I'm going to ask you some 11:58	22 A. That is correct. 12:00
23 questions that you've already answered, but I think 11:58	23 Q. Okay. 12:00
24 it would be helpful just to establish the foundation 11:58	24 A. Yes. 12:00
25 again. 11:58	25 Q. And one reason you identified is that -- 12:00
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1 is that the -- the repellers might contain different 12:00	1 model after that, so it wasn't just this model. 12:02
2 numbers of speakers. 12:00	2 BY MR. KOPEL: 12:02
3 Do you remember saying that? 12:00	3 Q. Yeah, but you've done anything to confirm 12:02
4 A. Yes. 12:00	4 that these models have the same specifications as the 12:02
5 Q. Okay. How is that -- how is that 12:00	5 other Bell + Howell pest repellers; correct? 12:02
6 different than what you did here? 12:00	6 MR. OSTOJIC: Same objection. 12:02
7 A. Because these are Bell + Howell -- these 12:00	7 BY THE WITNESS: 12:02
8 were Bell + Howell devices that I'm analyzing. 12:00	8 A. I -- I did. I looked at the product spec 12:02
9 Q. Do some Bell + Howell -- 12:00	9 sheet for a model, I looked at Mankin's results, and 12:02
10 A. He -- 12:00	10 I concluded that they produced ultrasonic sound. 12:03
11 Q. I'm sorry. No, I didn't mean to 12:00	11 BY MR. KOPEL: 12:03
12 interrupt you. Go ahead. 12:01	12 Q. Can you explain why you criticize 12:03
13 A. The published literature back from the 12:01	13 Dr. Potter for using test results of models that 12:03
14 '80s and '90s did not include Bell + Howell devices. 12:01	14 potentially have two different numbers of speakers 12:03
15 Q. So is the relevant analysis whether or 12:01	15 whereas you did the same thing? 12:03
16 not it has the same name on the device; is that the 12:01	16 MR. OSTOJIC: Object. Argumentative. Also 12:03
17 relevant analysis? 12:01	17 asked and answered. And to the form of the question. 12:03
18 A. Well the relevance of the name is that 12:01	18 If you want you can refresh your 12:03
19 it -- the manufacturer manufacturers a device to 12:01	19 recollection by looking at your report where you make 12:03
20 their specifications. 12:01	20 that criticism. 12:03
21 We don't know whether the devices 12:01	21 THE WITNESS: Can you point me to where that 12:03
22 that were tested in the '80s and '90s have the same 12:01	22 criticism is? 12:03
23 specifications as Bell + Howell. 12:01	23 BY MR. KOPEL: 12:05
24 And when I say specifications, I 12:01	24 Q. I'm looking at Page 18 of your rebuttal 12:05
25 don't just mean just frequencies and decibels. I 12:01	25 report. 12:05
Page 94	Page 96
1 mean, you know, the whole package. 12:01	1 A. Okay. I'm there. 12:05
2 Q. Do all Bell + Howell devices contain the 12:01	2 Q. Okay. I'm looking at the second 12:05
3 same number of speakers? 12:01	3 paragraph. You said here, "Since ultrasound is 12:05
4 A. At this time I don't know. I mean in 12:01	4 unidirectional, the directional position of the 12:06
5 this -- Ms. Feuerstein said in her deposition that 12:01	5 speakers within the case is vitally important to the 12:06
6 the devices evolved over -- improved over time. That 12:02	6 effectiveness of the device. Speaker number, size 12:06
7 was her -- her terminology. 12:02	7 and direction, are examples of several independent 12:06
8 So when you say do all of them have, 12:02	8 variables/components within all ultrasonic brands and 12:06
9 I don't know -- I suspect it might be different 12:02	9 models that can vary and thus variably affect device 12:06
10 because they've been selling them for X number of 12:02	10 efficacy. This goes to my opinionated position that 12:06
11 years. 12:02	11 it's incumbent upon scientists to stay the 12:06
12 Q. Okay. So if -- if one model has two 12:02	12 conservative course and not assume or make misleading 12:06
13 speakers and one model has one, are those the same 12:02	13 proclamations that an untested device would perform 12:06
14 specifications? 12:02	14 as well or as poorly as tested devices under the same 12:06
15 A. No. 12:02	15 experimental conditions even if certain other 12:06
16 Q. Okay. But, nonetheless, you've extended 12:02	16 variables, components, and functionalities are 12:06
17 the test results from this model onto all -- all 12:02	17 similar."
18 models of Bell + Howell pest repellers; correct? 12:02	18 Do you see that? 12:06
19 A. Well -- 12:02	19 A. Yes. 12:06
20 MR. OSTOJIC: Object. Asked and answered 12:02	20 Q. Okay. Are you doing the same thing 12:06
21 like four or five times. 12:02	21 you're criticizing in -- in using this report to 12:06
22 But go ahead. 12:02	22 render an opinion that all Bell + Howell models are 12:06
23 BY THE WITNESS: 12:02	23 effective? 12:06
24 A. This model and the next model you're 12:02	24 A. I do not believe so because they're 12:06
25 going to bring up and the model after that and the 12:02	25 manufactured by Bell + Howell. 12:06
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<p>1 Q. Okay. And -- I'm sorry to interrupt. 12:06</p> <p>2 A. And Ms. Feuerstein testified that there's 12:06</p> <p>3 a -- there's a lineage of devices improved over time, 12:07</p> <p>4 and the same technology is in each of them. 12:07</p> <p>5 Q. But speaker number, size, and direction, 12:07</p> <p>6 these are all variables that you did not compare 12:07</p> <p>7 these devices to the other models on; correct? 12:07</p> <p>8 A. Correct. 12:07</p> <p>9 MR. OSTOJIC: Object. Asked and answered. 12:07</p> <p>10 MR. KOPEL: Let's move on. 12:07</p> <p>11 BY MR. KOPEL: 12:07</p> <p>12 Q. Please turn back to the study we were 12:07</p> <p>13 discussing, the one ending in 3439. I'm still on the 12:07</p> <p>14 first page. 12:07</p> <p>15 A. 3439. First page. 12:07</p> <p>16 Okay. 12:07</p> <p>17 Q. See Comments, Remark section? 12:07</p> <p>18 A. Yes. 12:07</p> <p>19 Q. It says, "Canceled bread and white 12:07</p> <p>20 granulated sugar as food for spiders on 12 -- March 12:07</p> <p>21 2012, the spiders were not eating and drinking." 12:07</p> <p>22 Do you see that? 12:08</p> <p>23 A. Yes. 12:08</p> <p>24 Q. Okay. Do you spiders eat bread and white 12:08</p> <p>25 granulated sugar? 12:08</p> <p style="text-align: right;">Page 98</p>	<p>1 (WHEREUPON, the record was</p> <p>2 read by the reporter.) 12:09</p> <p>3 BY THE WITNESS: 12:09</p> <p>4 A. That depends on the laboratory let's say, 12:09</p> <p>5 their laboratory. 12:09</p> <p>6 You could have a technician who is 12:09</p> <p>7 just following orders; and if the protocol was 12:09</p> <p>8 established by someone who was experienced and the 12:09</p> <p>9 technician's job was to count the insects, then it 12:09</p> <p>10 does -- in my opinion it does not -- it is not 12:10</p> <p>11 important for that technician to be an expert in 12:10</p> <p>12 protocol design. 12:10</p> <p>13 BY MR. KOPEL: 12:10</p> <p>14 Q. Would the food that you're feeding the 12:10</p> <p>15 insects be part of a protocol? 12:10</p> <p>16 MR. OSTOJIC: Object to form, foundation. 12:10</p> <p>17 BY THE WITNESS: 12:10</p> <p>18 A. If food was being used, yes. 12:10</p> <p>19 BY MR. KOPEL: 12:10</p> <p>20 Q. Okay. So it appears that whoever made 12:10</p> <p>21 this protocol was inexperienced; correct? 12:10</p> <p>22 A. It does. Whoever -- yes -- well, let 12:10</p> <p>23 me -- whoever designed the protocol and put it to 12:10</p> <p>24 words that -- that bread and white granulated sugar 12:10</p> <p>25 should be included in the spider testing. 12:10</p> <p style="text-align: right;">Page 100</p>
<p>1 A. Not in my experience. 12:08</p> <p>2 Q. Okay. Does that make you question the 12:08</p> <p>3 competence of the people running this report -- this 12:08</p> <p>4 testing? 12:08</p> <p>5 A. It tells me that they were inexperienced 12:08</p> <p>6 in protocol design. 12:08</p> <p>7 Q. Is it important for someone to have 12:08</p> <p>8 experience in protocol design when running tests like 12:08</p> <p>9 this? 12:08</p> <p>10 A. It's certainly helpful. 12:08</p> <p>11 Q. Is it important? 12:08</p> <p>12 MR. OSTOJIC: Object. Asked and answered. 12:08</p> <p>13 But go ahead. 12:08</p> <p>14 BY THE WITNESS: 12:08</p> <p>15 A. It's a subjective word. 12:08</p> <p>16 BY MR. KOPEL: 12:08</p> <p>17 Q. Well, you're rendering opinions in this 12:08</p> <p>18 case; right? 12:08</p> <p>19 Is it your opinion that it's 12:08</p> <p>20 important? 12:08</p> <p>21 A. All right. Please read the question 12:08</p> <p>22 again. Sorry. 12:08</p> <p>23 MR. KOPEL: Do you know what question the 12:09</p> <p>24 witness is referring to? 12:09</p> <p>25 Sorry. 12:09</p> <p style="text-align: right;">Page 99</p>	<p>1 BY MR. KOPEL: 12:10</p> <p>2 Q. Does that give you any concern as to the 12:10</p> <p>3 reliability of what was done in this study? 12:10</p> <p>4 A. No. 12:10</p> <p>5 Q. Please turn to the next page. 12:10</p> <p>6 Under the -- under the Object 12:10</p> <p>7 heading, the last line says, "Both frequency and 12:10</p> <p>8 sound pressure (DB) are important parameters." 12:10</p> <p>9 Do you see that? 12:11</p> <p>10 A. I do. 12:11</p> <p>11 Q. Do they -- do they say that speaker size 12:11</p> <p>12 is an important parameter? 12:11</p> <p>13 A. It does not state that. 12:11</p> <p>14 Q. Do they say that speaker -- the number of 12:11</p> <p>15 speakers is an important parameter? 12:11</p> <p>16 A. It does not say that. 12:11</p> <p>17 Q. Does it say that speaker direction is an 12:11</p> <p>18 important parameter? 12:11</p> <p>19 A. It does not say that. 12:11</p> <p>20 Q. Please look at the next page. There's a 12:11</p> <p>21 heading title, "Preparation and Handling of 12:11</p> <p>22 Ants/Spiders/Roaches." 12:11</p> <p>23 Do you see that? 12:11</p> <p>24 A. Yes. 12:11</p> <p>25 Q. Now, here it says that "As spiders are 12:11</p> <p style="text-align: right;">Page 101</p>

1 larger and far more aggressive than ants and roaches, 12:11	1 MR. OSTOJIC: Object to form. 12:14
2 they can, and often do, kill smaller pests like ants 12:11	2 BY THE WITNESS: 12:14
3 and roaches. Therefore, the testing of spiders and 12:11	3 A. It could be. You have to look at the 12:14
4 ants/roaches must be conducted separately in 12:11	4 data to find out if it was confounding or not. 12:14
5 different times." 12:11	5 BY MR. KOPEL: 12:14
6 Do you see that? 12:11	6 Q. Would you agree that that could 12:14
7 A. Yes. 12:11	7 potentially render the data from that -- from that 12:14
8 Q. Do you agree with that statement? 12:11	8 test unreliable? 12:14
9 A. Not 100 percent. 12:11	9 A. No. I'd have to say that the data that 12:14
10 Q. Okay. Why not? 12:12	10 comes out of that is worth something because you want 12:14
11 A. Because ants can be very aggressive. 12:12	11 to -- you want to gather all the data that you 12:14
12 Q. Okay. And when you say ants can be very 12:12	12 possibly can. 12:14
13 aggressive, do you mean that they can be aggressive 12:12	13 Q. Now, do you have experience in dealing 12:14
14 towards roaches? 12:12	14 with pest infestations in private homes? 12:14
15 A. They could be. 12:12	15 A. Yes. 12:14
16 Q. Okay. Now, do you -- do you agree, 12:12	16 Q. Is it common to see an infestation of 12:14
17 though, with the second sentence that we read? 12:12	17 spiders and roaches at the same time in the same 12:14
18 "Therefore, the testing of spiders and ants/roaches 12:12	18 home? 12:14
19 must be conducted separately in different times"? 12:12	19 A. I am not -- I cannot answer that. It 12:14
20 A. That would be ideal. 12:12	20 would be a -- there's no reason not to believe they 12:15
21 Q. Do you agree with it? 12:12	21 can. 12:15
22 A. Well, it depends -- I do not agree whole 12:12	22 Q. Have you ever seen it? 12:15
23 heart -- I mean in -- without reservation or without 12:12	23 A. No. 12:15
24 qualification because when the word must be, it 12:12	24 Q. Would you suppose -- I'm sorry. Were you 12:15
25 depends on the purpose of the test. 12:12	25 done with your answer? 12:15
Page 102	Page 104
1 Q. Well, okay. If -- do you agree that 12:12	1 A. Yeah, because even -- the word 12:15
2 spiders eat roaches? 12:13	2 infestation is subjective. I don't know what you 12:15
3 A. Yes. 12:13	3 mean by infestation. 12:15
4 Q. Okay. Now, would you suppose that the 12:13	4 If you're meaning spiders appearing 12:15
5 presence of a roach in a certain area might affect 12:13	5 everywhere, crawling over the table, crawling, you 12:15
6 the movement of the spider? 12:13	6 know, that's one thing as opposed to there's one 12:15
7 A. If -- yes. However, let me elaborate. 12:13	7 spider web up in the corner of the room, and the same 12:15
8 What we're not talking about here is 12:13	8 thing goes for roaches. 12:15
9 the species of spider or the species of -- this is a 12:13	9 It's a subjective -- infestation is 12:15
10 generalization, okay. 12:13	10 a subjective word, means different things to 12:15
11 Spiders are predatory. They eat 12:13	11 different people. Different homeowners have more 12:15
12 other insects; and so if a roach happens upon their 12:13	12 tolerance that other homeowners. 12:15
13 nest -- or their web -- sorry -- they might eat it. 12:13	13 Q. Have you seen that people with cats are 12:15
14 Q. Okay. Now, let's talk about in the 12:13	14 less likely to have rodent problems in their home? 12:15
15 context of testing, please. 12:13	15 MR. OSTOJIC: Object to form. 12:15
16 A. Yeah. 12:13	16 BY THE WITNESS: 12:15
17 Q. Okay. Would you agree that it's a 12:13	17 A. I have not because I don't own a cat. 12:15
18 confounding variable to place insects together in a 12:13	18 BY MR. KOPEL: 12:16
19 chamber where one insect preys upon the other insect? 12:13	19 Q. Would you suppose that because cats eat 12:16
20 MR. OSTOJIC: Object to form. 12:14	20 or harass rodents, people with cats are less likely 12:16
21 BY THE WITNESS: 12:14	21 to have rodent problems in their homes? 12:16
22 A. I would not advise that. 12:14	22 MR. OSTOJIC: Object to form, but go ahead. 12:16
23 BY MR. KOPEL: 12:14	23 BY THE WITNESS: 12:16
24 Q. Would you agree that it's a confounding 12:14	24 A. That seems like a logical extension to 12:16
25 variable? 12:14	25 me. 12:16
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1 BY MR. KOPEL: 12:16	1 Do you think that that was the 12:18
2 Q. Okay. Can you please look at the page 12:16	2 purpose of this test? 12:18
3 with the Bates number -- oh, excuse me. I think you 12:16	3 A. I don't know actually. I wasn't in the 12:18
4 have different Bates numbers than I do. 12:16	4 room when they designed the experiment. 12:18
5 I'm looking at this same test. 12:16	5 Q. Okay. Can you turn to -- back to the 12:18
6 There's a chart for spiders. 12:16	6 second page where it says, "Object." 12:18
7 Do you see that? 12:16	7 Okay. Do you see the sentence where 12:18
8 A. I think we're on the same page, yeah. 12:16	8 it says, "This is to measure the efficacy of high- 12:18
9 Q. Okay. Great. 12:17	9 frequency sound as a pest management tool"? 12:19
10 Do you see here there's -- on the 12:17	10 A. Wait a minute. I'm just now getting to 12:19
11 bottom of the chart it says, "Note" and there's three 12:17	11 it. 12:19
12 bullet points here? 12:17	12 MR. OSTOJIC: What page is that? 12:19
13 A. Yes. 12:17	13 MR. KOPEL: Sure. It's the second page of 12:19
14 Q. Okay. The second one indicates that 12:17	14 this test. 12:19
15 these spiders were eating roaches; correct? 12:17	15 BY THE WITNESS: 12:19
16 A. "Each spider chamber was provided 10 12:17	16 A. Okay. And where are you -- you're under 12:19
17 recently dead roaches as food for spiders on a daily 12:17	17 "Object." 12:19
18 basis." 12:17	18 BY MR. KOPEL: 12:19
19 I see that. 12:17	19 Q. Yep. The third sentence. 12:19
20 Q. Would you suppose that if you had spiders 12:17	20 A. "This is to measure the efficacy of high- 12:19
21 around -- in the same space as roaches, it would be 12:17	21 frequency sound as a pest management tool." 12:19
22 likely that the spiders would eat the roaches? 12:17	22 Yeah, I see that. 12:19
23 MR. OSTOJIC: Object to form. Incomplete 12:17	23 Q. Okay. So we're pretty clear of what the 12:19
24 hypothetical. 12:17	24 object of this test is? 12:19
25 But go ahead. 12:17	25 A. That's what they state. 12:19
Page 106	Page 108
1 BY THE WITNESS: 12:17	1 Q. Okay. If you were designing a test with 12:19
2 A. It could but not -- 12:17	2 that object, would you put ants and roaches in the 12:19
3 BY MR. KOPEL: 12:17	3 same chamber? 12:19
4 Q. That wouldn't concern you in the context 12:17	4 A. You know, now that I think about it, I 12:19
5 of a test? 12:17	5 might, because in a pest -- in a house if there is a 12:19
6 MR. OSTOJIC: Object to form, foundation. 12:17	6 infestation of all three of these things, a large 12:19
7 But go ahead. 12:17	7 enough infestation to be concerned, you might want to 12:19
8 BY THE WITNESS: 12:17	8 do that. 12:19
9 A. As I said, I would not have designed an 12:17	9 In my opinion it wouldn't be the 12:19
10 experiment with -- and put spiders and roaches and 12:17	10 only thing I'd do, but that seems to be a valid 12:19
11 ants in the chamber or the testing arena at the same 12:17	11 question since these pests do occur in the -- can 12:20
12 time. 12:18	12 occur I should say -- in the same room at the same 12:20
13 BY MR. KOPEL: 12:18	13 time. 12:20
14 Q. Okay. Would you have put roaches and 12:18	14 BY MR. KOPEL: 12:20
15 ants in the same arena at the same time if you had 12:18	15 Q. And if tests -- if tests are used that 12:20
16 designed an experiment? 12:18	16 use multiple pests in the same chamber at the same 12:20
17 A. You know, let me -- let me qualify. 12:18	17 time, can the data from those tests necessarily be 12:20
18 It really depends on the purpose of 12:18	18 reliable to say what would have occurred had they not 12:20
19 the experiment. 12:18	19 done so? 12:20
20 You could set out a hypothesis where 12:18	20 MR. OSTOJIC: Object to form, foundation. 12:20
21 the purpose of experiment being I want to find out 12:18	21 BY THE WITNESS: 12:20
22 what happens when ants and roaches are put in the 12:18	22 A. Had they not done what? 12:20
23 chamber together. You'd have to do it that way in 12:18	23 BY MR. KOPEL: 12:20
24 order to answer that question. 12:18	24 Q. Put multiple pests in the same chambers 12:20
25 Q. Sure. 12:18	25 at the same time. 12:20
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1 MR. OSTOJIC: Same objections. 12:20	1 can affect each other's movements? 12:23
2 BY THE WITNESS: 12:20	2 A. They might. 12:23
3 A. I've lost the first part of your 12:20	3 Q. So let's say the ultrasonic technology 12:23
4 question. 12:20	4 was only effective as to roaches or ants, but -- so 12:23
5 MR. KOPEL: Sure. 12:20	5 under those circumstances wouldn't it be possible 12:23
6 BY MR. KOPEL: 12:20	6 that as a secondary result the one that it is not 12:23
7 Q. Let's say a home has an infestation of 12:20	7 effective for would also exhibit movement? 12:23
8 ants, does not have an infestation of spiders or 12:20	8 MR. OSTOJIC: Object. Form, foundation, 12:23
9 roaches, okay? 12:20	9 incomplete hypothetical. 12:23
10 A. Uh-huh. 12:20	10 Go ahead. 12:23
11 Q. Let's say you take a test where ants and 12:20	11 BY THE WITNESS: 12:23
12 roaches are tested in the same chamber at the same 12:20	12 A. Could you repeat that long question? 12:23
13 time, would the data from that test necessarily 12:21	13 MR. KOPEL: Sure. 12:23
14 translate to the case of the home that only has an 12:21	14 BY MR. KOPEL:
15 ant infestation? 12:21	15 Q. Let's say -- let's say that ultrasonic 12:23
16 MR. OSTOJIC: Object to incomplete 12:21	16 technology were effective to affect the movement of 12:24
17 hypothetical, form. 12:21	17 roaches and not ants, okay? 12:24
18 But go ahead and answer. 12:21	18 A. Okay. Hypothetical. 12:24
19 BY THE WITNESS: 12:21	19 Q. Hypothetical, right. 12:24
20 A. There are other factors involved. It 12:21	20 Under those circumstances, if you 12:24
21 would not be a direct one-to-one -- one-to-one test 12:21	21 tested roaches and ants together in the same chamber, 12:24
22 versus what you're observing in the house. 12:21	22 even under this hypothetical where the technology is 12:24
23 If you got just ants in the house 12:21	23 not effective towards the ants, you still might see 12:24
24 and you've got data that's based on roaches and ants, 12:21	24 some increased movement on the part of the ants due 12:24
25 it's -- it's not a direct comparison, no. 12:21	25 to its effectiveness on the roaches; would that be 12:24
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1 BY MR. KOPEL: 12:21	1 correct? 12:24
2 Q. So in this test they tested the roaches 12:21	2 A. You might. 12:24
3 and ants in the same chamber at the same time; 12:21	3 MR. OSTOJIC: Object to form, foundation. 12:24
4 correct?	4 Incomplete hypothetical. 12:24
5 A. Well, it appears so, but let me read the 12:22	5 But go ahead. 12:24
6 protocol to make sure that I'm -- 12:22	6 BY THE WITNESS: 12:24
7 Q. That's okay. If it's helpful you can 12:22	7 A. You might. 12:24
8 take a look at Page 3 -- 12:22	8 BY MR. KOPEL: 12:24
9 A. That would help. 12:22	9 Q. Okay. So does that concern you in terms 12:24
10 Q. -- the second paragraph, the last 12:22	10 of extending the data from this test to a situation 12:24
11 sentence of the second paragraph. 12:22	11 where only roaches were present or only ants were 12:24
12 A. "In order to prevent spiders -- in order 12:22	12 present? 12:24
13 to prevent spiders eat ants and roaches, the testing 12:22	13 A. Again, I say not really. 12:24
14 will be conducted separately, spiders in one 12:22	14 BY MR. KOPEL: 12:24
15 testing" -- yes, you are right. 12:22	15 Q. What species were used in this test? 12:24
16 Q. Okay. Do you feel comfortable using the 12:22	16 A. They do not say. 12:24
17 data from the roaches and the ants portion of this 12:22	17 Q. Is it important to know what species 12:25
18 study in rendering an opinion on a home which might 12:22	18 there are -- they use? 12:25
19 only have ants or only have roaches? 12:22	19 A. It would be helpful. 12:25
20 A. Yes, I do. 12:22	20 Q. Is it important? 12:25
21 Q. Why? 12:22	21 MR. OSTOJIC: Object to asked and answered. 12:25
22 A. Because -- because I'm presented with 12:22	22 But go ahead. 12:25
23 data that show a difference in -- in results when the 12:22	23 BY THE WITNESS: 12:25
24 repeller is on or off. 12:23	24 A. Not necessary in my opinion. 12:25
25 Q. Now, do you agree that ants and roaches 12:23	25
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1 BY MR. KOPEL: 12:25	1 A. The word control, again, can be defined 12:27
2 Q. Okay. Do you know if they used the 12:25	2 in different ways, and you could make the case here 12:27
3 species of ants that are -- that are present in the 12:25	3 that the control or the treatments between days, 24 12:27
4 United States? 12:25	4 hours, 48 hours, 72 hours, et cetera, those are -- 12:27
5 A. I do not. 12:25	5 you could make the case that those are independent 12:27
6 Q. Do you know if they use a species of 12:25	6 observations and, therefore, one controls for the 12:27
7 roaches that are present in the United States? 12:25	7 other. 12:28
8 A. Based on the picture that is provided -- 12:25	8 Q. Do you know what would have occurred had 12:28
9 and this is the only evidence I have to go by, 12:25	9 they run this testing for seven days without the 12:28
10 okay -- that picture resembles cockroaches that are 12:25	10 repellents on? 12:28
11 present in the United States. 12:25	11 MR. OSTOJIC: Object to form. 12:28
12 Q. Are you referring to the hand drawing? 12:25	12 BY THE WITNESS: 12:28
13 A. No, Page 3 of 19. There's a -- 12:25	13 A. Do I know what would happen if they -- 12:28
14 Q. Is that a real picture, or is that a 12:25	14 I'm trying to restate it in my mind. 12:28
15 depiction? 12:26	15 BY MR. KOPEL: 12:28
16 A. I -- I don't know, but if you -- you 12:26	16 Q. Well, maybe I can -- maybe I can rephrase 12:28
17 know, I'm -- what was the original question? Do I 12:26	17 the question. 12:28
18 know? 12:26	18 A. Okay. 12:28
19 Q. The question is: Do you know whether 12:26	19 Q. Okay. Let's talk about spiders. 12:28
20 they use a species of spiders that are present in the 12:26	20 What would the distribution of 12:28
21 United States? 12:26	21 spiders have been had they run this same testing but 12:28
22 A. I do not. 12:26	22 with no repeller present or turned on? 12:28
23 Q. Do you know if they use a species of 12:26	23 MR. OSTOJIC: Object. Form, foundation. 12:28
24 roaches that are present in the United States? 12:26	24 BY THE WITNESS: 12:28
25 A. I do not. 12:26	25 A. Given the fact that these spiders were 12:28
Page 114	Page 116
1 Q. Is it possible that a species of ants, 12:26	1 fed, it's likely that they would have stayed in the 12:28
2 spiders, or roaches that live across the world might 12:26	2 same place that they were released. 12:28
3 react differently to stimuli than species that live 12:26	3 BY MR. KOPEL: 12:28
4 in the U.S.? 12:26	4 Q. Do you know -- do you -- do you -- can 12:29
5 MR. OSTOJIC: Object to form. 12:26	5 you tell me for a fact that the distribution would 12:29
6 Go ahead. 12:26	6 have been any different had these repellents been not 12:29
7 BY THE WITNESS: 12:26	7 present or not turned on? 12:29
8 A. In my opinion that's a small 12:26	8 MR. OSTOJIC: Wait. Object to form, 12:29
9 insignificant probability. 12:26	9 foundation. 12:29
10 BY MR. KOPEL: 12:26	10 Would you repeat that? 12:29
11 Q. So it's possible, but you think it's 12:26	11 (WHEREUPON, the record was 12:29
12 unlikely; is that a fair -- is that accurate? 12:26	12 read by the reporter.)
13 MR. OSTOJIC: Object to form. 12:26	13 THE WITNESS: I'm -- I'm still not quite 12:29
14 BY THE WITNESS: 12:26	14 understanding it. Maybe you can rephrase it. 12:29
15 A. It's unlikely -- 12:26	15 MR. KOPEL: Sure. 12:29
16 BY MR. KOPEL: 12:26	16 BY MR. KOPEL: 12:29
17 Q. I'm sorry. You just nodded your head, 12:26	17 Q. Now, in the course of your work at Dow, 12:29
18 and you can't -- was that a? 12:26	18 when you were assessing studies, which were relevant 12:29
19 A. Well, I was waiting for you to finish. 12:26	19 towards evaluating insecticide efficacy, was it 12:29
20 Q. Okay. Go ahead. 12:26	20 important for you to see data on controls used? 12:30
21 A. Unlikely and insignificant. 12:26	21 A. Yes. 12:30
22 Q. Was this test replicated? 12:27	22 Q. Okay. And under those circumstances did 12:30
23 A. I did not read that it was replicated, 12:27	23 you typically rely on pretesting data, or was the 12:30
24 no. 12:27	24 control a whole separate treatment for the same 12:30
25 Q. Was there a control used for this test? 12:27	25 length of time without -- without the treatment 12:30
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1 applied? 12:30	1 BY MR. KOPEL: 12:33
2 MR. OSTOJIC: Object to form. 12:30	2 Q. And I understand what you expect, but do 12:33
3 Go ahead. 12:30	3 you know is the question? 12:33
4 BY THE WITNESS: 12:30	4 MR. OSTOJIC: Object to form. Asked and 12:33
5 A. Typically the experiments that -- that we 12:30	5 answered. 12:33
6 use for insecticide testing involves an untreated 12:30	6 But go ahead. 12:33
7 control for the same amount of time as you were 12:30	7 BY THE WITNESS: 12:33
8 treating -- as the treatment was applied. 12:30	8 A. Preliminary testing was not done for 7 12:33
9 So everything is equal, identical, 12:30	9 days, so I do not have data for 5 more days than 12:33
10 except for the one variable you're trying to discern, 12:31	10 what's provided here. 12:33
11 discriminate with, which would be the treatment. 12:31	11 BY MR. KOPEL: 12:33
12 Insecticide, yes; insecticide, no. 12:31	12 Q. Have you ever relied -- in the course of 12:33
13 Q. And why was that the case? Why was that 12:31	13 your time at Dow, have you ever relied on product 12:33
14 important? 12:31	14 testing that used a pretest as a control where the 12:33
15 A. That was important because you wanted to 12:31	15 pretest was less than a third of the testing length? 12:33
16 be able to statistically determine whether there was 12:31	16 A. That does not cause me concern. I can't 12:34
17 a difference between the result in the control plot 12:31	17 remember or cite a particular experiment we ran that 12:34
18 which had no insecticide versus the treatment plot. 12:31	18 had less than the duration of the test itself, but 12:34
19 Q. And that was not done in this test; 12:31	19 once the distribution, whether it's on Day 1, 2, 3, 12:34
20 correct? 12:31	20 4, 5, 6, 7, once the distribution of insects equals 12:34
21 MR. OSTOJIC: Object to form. 12:31	21 out between the two chambers, then you've got what 12:34
22 BY THE WITNESS: 12:31	22 you want, you're control is -- is working. 12:34
23 A. The experiments were different, but 12:31	23 Q. Okay. And would you agree that it's -- 12:34
24 they -- they had a -- a chamber which had -- did not 12:31	24 the generally accepted principle in the scientific 12:34
25 have a repeller, and so it was not done. I -- you 12:31	25 world would be to run the control for the same amount 12:34
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1 have to -- in this type of experiment what's 12:32	1 of time as the treatment? 12:34
2 important is that in -- is that all conditions are 12:32	2 MR. OSTOJIC: Object to form. 12:34
3 equal, identical in both chambers, and the fact that 12:32	3 BY THE WITNESS: 12:34
4 in pretesting you -- again, going back to the 12:32	4 A. I would not agree it's generally 12:34
5 statistics, you want to make sure that there's no 12:32	5 accepted. It would be great if you had the time and 12:35
6 bias in those two chambers. 12:32	6 the resources to do it. It would be nice. 12:35
7 And so you -- the purpose of the 12:32	7 BY MR. KOPEL: 12:35
8 pretest is to test -- to validate that the 12:32	8 Q. Do you think that a study which used the 12:35
9 distribution of spiders in this case would be equal 12:32	9 pretest period that was less than a third in the 12:35
10 between the two chambers. 12:32	10 length of the treatment period, do you think that 12:35
11 So you're -- okay. I'll just stop 12:32	11 this could withstand peer review in a journal? 12:35
12 there because I think I'm off on a tangent. 12:32	12 A. I do. 12:35
13 Q. And you only have that data for 2 days, 12:32	13 Q. Have you ever seen that where a study was 12:35
14 you don't have it for 7 days; correct? 12:33	14 published in a journal that used a much shorter 12:35
15 A. I do not. 12:33	15 pretest as the control? 12:35
16 Q. And we don't know what the data would 12:33	16 A. Well, you've asked me my opinion. I said 12:35
17 have borne out had it been done for 7 days; correct? 12:33	17 I think it could be published. 12:35
18 A. I do not -- 12:33	18 Have I -- can I give you a reference 12:35
19 MR. OSTOJIC: Object to form. 12:33	19 in a journal, volume, page numbers, no, I cannot do 12:35
20 BY THE WITNESS: 12:33	20 that. 12:35
21 A. -- expect it would be any different. 12:33	21 Q. Can you please turn to the chart for 12:35
22 BY MR. KOPEL: 12:33	22 roaches and ants. 12:36
23 Q. Do you know? 12:33	23 On Day 1, so this is -- 12:36
24 A. I do not expect it to be any different. 12:33	24 MR. OSTOJIC: Hold on. 12:36
25	25 MR. KOPEL: I'm sorry. 12:36
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1 MR. OSTOJIC: He's not there. 12:36  
2 THE WITNESS: Like I said before, my -- I'm 12:36  
3 anticipating you asking question that I could most 12:36  
4 easily answer by looking at my -- the Reference 10 12:36  
5 that I cited before, but if you don't want me to, I 12:36  
6 won't. 12:36  
7 MR. OSTOJIC: No, no, no. 12:36  
8 MR. KOPEL: You can look at whatever you 12:36  
9 want. That's fine. 12:36  
10 MR. OSTOJIC: I wanted you guys to be on the 12:36  
11 same page because he asked you to go to the roaches 12:36  
12 and ants. 12:36  
13 MR. KOPEL: That's -- I'm not giving you a 12:36  
14 memory test right now. If it's helpful for you to 12:36  
15 look at something else, you're welcome to do so. 12:36  
16 Okay? 12:36  
17 THE WITNESS: Well, I'll wait until you ask 12:36  
18 the question. 12:36  
19 MR. KOPEL: Yeah, listen to the question. 12:36  
20 BY MR. KOPEL: 12:36  
21 Q. Okay. On Day Negative 2 in this test 12:36  
22 there were 7 roaches in Chamber A and 13 roaches in 12:36  
23 Chamber B. 12:37  
24 Do you see that? 12:37  
25 A. Talking just roaches? 12:37

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1 Q. Just roaches. 12:37  
2 A. No, I see 7 and 13. Is that what you 12:37  
3 said? 12:37  
4 Q. I believe so. 12:37  
5 A. Yes, that's what I see. 12:37  
6 Q. That's 30 percent more roaches in 12:37  
7 Chamber B on Day Negative 2 than there were on -- I'm 12:37  
8 sorry. 12:37  
9 That's 30 percent more roaches in 12:37  
10 Chamber B than Chamber A on Day Negative 2; correct? 12:37  
11 A. If that's your arithmetic, but the 12:37  
12 arithmetic -- that's why I was going to this -- this 12:37  
13 document because the -- just citing those numbers and 12:37  
14 30 percent, we don't know whether that's a 12:37  
15 significant difference or not. 12:37  
16 I ran the chi-square test to 12:37  
17 determine whether that was equal -- whether those 12:37  
18 numbers were statistically different or not. 12:37  
19 Q. Now, your chi-square test took both -- 12:37  
20 both days of pretesting into consideration; correct? 12:37  
21 A. It considered them independently, but -- 12:37  
22 not together. 12:37  
23 Q. Okay. Was that a statistically 12:37  
24 significant difference? 12:38  
25 A. I'd have to look. 12:38

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1 Okay. Let me just -- SGS 2012; 12:38  
2 right, that's my No. 3? 12:38  
3 Okay. Roaches and ants. All right. 12:38  
4 For -- I'm looking different. Something is wrong. 12:38  
5 Oh, there's the 713. 12:38  
6 Okay. For roaches the chi-square 12:38  
7 p-value was 0.1818, rounded up, and so they were 12:38  
8 statistically the same in each -- in each chamber. 12:38  
9 Q. For Day Negative 2? 12:38  
10 A. Well, yes, I called it Day 1 in my table; 12:38  
11 but, yes, 7 and 13. The number 7 and 13 -- 12:38  
12 Q. Yes. 12:39  
13 A. -- are not different at the .18 level. 12:39  
14 Q. Given that the first day there was a 30 12:39  
15 percent discrepancy, do you have any reason to 12:39  
16 believe that on the third day there wouldn't have 12:39  
17 been a 40 or 50 percent discrepancy? 12:39  
18 MR. OSTOJIC: Object to form, foundation. 12:39  
19 Mischaracterize the evidence, but go ahead. 12:39  
20 THE WITNESS: Do I have any -- you got to 12:39  
21 repeat it. 12:39  
22 MR. KOPEL: Sure. 12:39  
23 BY MR. KOPEL: 12:39  
24 Q. Given that -- that the first day of 12:39  
25 preliminary testing there was a 30 percent 12:39

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1 discrepancy, do you have any reason to believe that 12:39  
2 on -- had the preliminary testing done on for a third 12:39  
3 day, that there would not have been a 40 or 50 12:39  
4 percent discrepancy? 12:39  
5 MR. OSTOJIC: Object to form, foundation, and 12:39  
6 also misstates the evidence. 12:39  
7 But go ahead. 12:39  
8 BY THE WITNESS: 12:39  
9 A. Yeah, it's a hypothetical, and I don't -- 12:39  
10 I don't think it would be any different. 12:39  
11 MR. OSTOJIC: Any different than what it was? 12:40  
12 BY THE WITNESS: 12:40  
13 A. Yes. Meaning that the chambers were -- 12:40  
14 were statistically the same. 12:40  
15 If you carried pretesting after Day 12:40  
16 3, I expect that they would be statistically the 12:40  
17 same. 12:40  
18 BY MR. KOPEL: 12:40  
19 Q. Are the posttesting, the two days of 12:40  
20 posttesting here, are they relevant? 12:40  
21 A. Certainly. 12:40  
22 Q. Now, I know that -- I believe you 12:40  
23 testified earlier that you did not believe that 12:40  
24 this -- this test had been replicated; correct? 12:40  
25 A. Not -- yes, not in the common way that 12:40

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1 people talk about replications. 12:40	1 Q. Fine. The only question that's pending 01:36
2 Q. Given that you don't know the species of 12:40	2 is: Have you seen it before? 01:36
3 tests used, would you be able to replicate this test 12:40	3 A. Well, I don't know because it's got a 01:36
4 if you wanted to? 12:41	4 different name than what I've got on my -- I've 01:36
5 MR. OSTOJIC: Object to form, foundation. 12:41	5 got -- it has Intertek. 01:36
6 But go ahead. 12:41	6 Okay. 2016. I've got -- let me 01:36
7 BY THE WITNESS: 12:41	7 look at the numbers. GZU dash -- yes. 01:36
8 A. It would be -- it would be coincidence I 12:41	8 Q. Okay. What is this? 01:36
9 guess. It would be -- I certainly can test roaches, 12:41	9 A. It's a test report. The applicant was 01:36
10 I can test ants, and I can test spiders. 12:41	10 Intellitec International, product Bell + Howell 01:36
11 Whether they're exactly the same 12:41	11 ultrasonic repeller. It was tested from April 7 to 01:36
12 species, we don't know since they -- since they 12:41	12 April 18, 2016 on ants, spiders, and roaches in 01:36
13 didn't say. 12:41	13 Dongguan, China. 01:36
14 BY MR. KOPEL: 12:41	14 Q. Okay. And do you see here it's -- this 01:36
15 Q. Well, in common practice and when we talk 12:41	15 is signed by Leo Lin and Sam Lin? 01:37
16 about the scientific concept of replication, would be 12:41	16 A. Yes, I do. 01:37
17 to use the same species; correct? 12:41	17 Q. Do you know who they are? 01:37
18 A. You would want to have anything 12:41	18 A. No, I do not. 01:37
19 identical, yes, replicates should be identical. 12:41	19 Q. Do you know if they're qualified to 01:37
20 Q. Given that we don't know the model of 12:41	20 conduct this test? 01:37
21 pest repeller used here, would that also prevent you 12:41	21 A. Do I know? The fact that their name is 01:37
22 from replicating this test if you wanted to do so? 12:41	22 on the report, leads me to believe they're qualified. 01:37
23 A. It depended on what level. 12:41	23 Q. So do you believe that any report where 01:37
24 If you -- if you wanted to test a 12:41	24 someone's name is on it, that means they're 01:37
25 Bell + Howell ultrasonic repeller, and your question 12:41	25 qualified? 01:37
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1 was does Bell + Howell repellents repel roaches and 12:41	1 A. No. 01:37
2 ants, not even asking the question about models, 12:41	2 Q. Okay. So do you know if Leo Lin and Sam 01:37
3 you're not saying do they differ, you're just asking 12:42	3 Lin are qualified? 01:37
4 does a Bell + Howell repeller repel roaches and ants, 12:42	4 A. Not specifically, no. 01:37
5 so I could do that. 12:42	5 Q. Do you know which model the pest repeller 01:37
6 MR. KOPEL: All right. Can we take -- can we 12:42	6 was used in this test? 01:37
7 take a five-minute break. 12:42	7 A. Let's see if I wrote it -- there was one 01:37
8 THE VIDEOGRAPHER: The time is 12:44. 12:42	8 that I was able to determine the model number from 01:38
9 We're off the record. 12:42	9 the photograph. Let me see if that was this one. 01:38
10 (WHEREUPON, a lunch recess 01:35	10 No, model test -- it was not stated. 01:38
11 was had.) 01:35	11 The picture is not clear enough without enhancement 01:38
12 THE VIDEOGRAPHER: The time is now 01:35	12 to see what it was. 01:38
13 approximately 1:37 p.m. 01:35	13 Q. Do you know what the size of the speaker 01:38
14 This the beginning of Media 3. 01:35	14 in this model tested was? 01:38
15 We're back on the record. 01:35	15 A. No. 01:38
16 MR. KOPEL: Good afternoon, Dr. Borth. 01:35	16 Q. Do you know how many speakers it 01:38
17 THE WITNESS: Hello. 01:35	17 contained? 01:38
18 BY MR. KOPEL: 01:35	18 A. No. 01:38
19 Q. Okay. I'd like to run through the 01:35	19 Q. Do you know anything about the direction 01:38
20 remainder of these Chinese tests with you, please, so 01:35	20 of the speaker? 01:38
21 let's please look at the exhibit marked as Borth 3. 01:35	21 A. Only an assumption that it had to be 01:38
22 Do you have Exhibit 3? 01:35	22 coming out of that hole to sit in front of the unit. 01:38
23 A. Yes, I do. 01:35	23 Q. Do you know what the decibel level of the 01:38
24 Q. Have you seen it before? 01:35	24 output of the speaker was? 01:38
25 A. This is a -- I have to make sure. 01:35	25 A. No, it's not stated. 01:38
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1 Q. Do you know if the speaker was static or 01:38	1 A. No, and it was not delineated in the 01:41
2 used sweeping frequencies? 01:39	2 table test results. 01:41
3 A. The testers did not state that. 01:39	3 Q. Given that you don't know what kind of 01:41
4 Q. But despite not knowing all that 01:39	4 food was used, is this test capable of replication? 01:41
5 information, you're still comfortable extending the 01:39	5 A. For the purposes of the reason the test 01:41
6 data that you saw from this test to all models of the 01:39	6 was conducted, yes. 01:41
7 Bell + Howell pest repellents; correct? 01:39	7 Q. Okay. Let's say they used food that was 01:42
8 A. Yes. 01:39	8 not typically eaten by spiders, ants, and roaches, 01:42
9 Q. What species of ants were used in this 01:39	9 would that make a difference if they had used food 01:42
10 test? 01:39	10 that spiders, ants, and roaches don't use versus if 01:42
11 A. It was not stated. 01:39	11 they use food that they do? 01:42
12 Q. What species of spiders were used in this 01:39	12 A. I don't think so because the key question 01:42
13 test? 01:39	13 is: Does the repeller repel the insects? 01:42
14 A. Not stated. 01:39	14 It does not talk about -- I mean 01:42
15 Q. What species of roaches were used in this 01:39	15 that's the simple question -- that's the question to 01:42
16 test? 01:39	16 be answered, the hypothesis. 01:42
17 A. Not stated. 01:39	17 Q. So it doesn't matter if the insects were 01:42
18 Q. What type of food did they provide to the 01:39	18 starving or not? 01:42
19 pests in this test? 01:39	19 A. Oh, it does. 01:42
20 A. I don't see that it's stated anywhere in 01:39	20 Q. Do you know if the insects were starving 01:42
21 the -- in the test report. 01:40	21 or not here? 01:42
22 Q. Do you think that a protocol should 01:40	22 A. No, I do not. 01:42
23 typically state what kind of food was being used? 01:40	23 Q. So does that give you concern given that 01:42
24 A. Yes. 01:40	24 you contend that that's relevant? 01:42
25 Q. Due to the fact that you don't know what 01:40	25 A. It does not concern me with respect to 01:42
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1 kind of food was used, is this test capable of 01:40	1 the daily counts that they made. 01:42
2 replication? 01:40	2 Q. Is this test capable of replication if 01:42
3 MR. OSTOJIC: Object to form. 01:40	3 you don't know what type of food was used? 01:42
4 BY THE WITNESS: 01:40	4 A. You could replicate it at a high level. 01:42
5 A. Well, I -- I don't -- I'm going to go 01:40	5 You could not replicate it in 01:43
6 back, if I can, to the previous question. 01:40	6 exact -- without knowing that -- in exactly the same 01:43
7 There is no indication that food was 01:41	7 way. 01:43
8 provided at all. 01:41	8 Q. Typically in science when the term 01:43
9 BY MR. KOPEL: 01:41	9 replication is used with regard to studies, it's 01:43
10 Q. Okay. Can you please turn to page, which 01:41	10 meant that all the variables were kept the same; 01:43
11 is Section 5, Daily Testing Record? 01:41	11 correct? 01:43
12 A. Okay. Section 5, Daily Testing Record. 01:41	12 A. That's correct. 01:43
13 Okay. 01:41	13 Q. And then that -- 01:43
14 Q. Do you see here that it says, "Record the 01:41	14 A. Except -- 01:43
15 consumption of food and water in each chamber"? 01:41	15 Q. I'm sorry. Go ahead. 01:43
16 A. Yes, it does say that. 01:41	16 A. Except for -- no. In a replication 01:43
17 Q. Okay. And then two rows down it says, 01:41	17 you're exactly right. I was thinking treatment 01:43
18 "Record the weight of new food and water." 01:41	18 versus -- 01:43
19 Do you see that? 01:41	19 Q. So in that sense this test can't be 01:43
20 A. It does say that. 01:41	20 replicated; correct? 01:43
21 Q. Do you understand, based on that, that 01:41	21 A. Well, it could if the same experimenters 01:43
22 food was used in this test? 01:41	22 did it exactly the same way. We just don't know what 01:43
23 A. It appears that it was. 01:41	23 they did. 01:43
24 Q. But you don't know what kind of food it 01:41	24 Q. Right. So given that we don't know that, 01:43
25 was; right? 01:41	25 could we replicate it? 01:43
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1 A. Oh, you might roll the dice and hit it; 01:43  
2 but, no. I mean you wouldn't be certain. 01:43  
3 Q. Given that we don't know what species of 01:43  
4 each pest were used, could we replicate this test? 01:43  
5 A. Again, I go back to a previous question. 01:43  
6 At the -- when you're talking about spiders, ants, 01:43  
7 and roaches, the -- the specific -- the species, it 01:43  
8 would be nice to have that information, but I don't 01:44  
9 think it's necessary. 01:44  
10 Q. Typically in -- when you've seen peer- 01:44  
11 reviewed publications and they're doing replications 01:44  
12 of studies done on insects, have you seen that 01:44  
13 they're using the same species of insects in the 01:44  
14 replications? 01:44  
15 A. Yes. 01:44  
16 Q. Have you seen any peer-reviewed -- 01:44  
17 A. This -- 01:44  
18 Q. I'm sorry. Go ahead. 01:44  
19 A. But this was not intended to be published 01:44  
20 in the peer-reviewed journal. 01:44  
21 Q. Have you ever seen a study that was 01:44  
22 published in a peer-reviewed journal where they used 01:44  
23 different species of the insects for purposes of the 01:44  
24 replication? 01:44  
25 A. I can imagine that it happened, very 01:44

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1 easily. In a case where I want to determine and -- 01:44  
2 the basis of the label language, whether a pesticide 01:44  
3 kills aphids, I could have soybean aphid, I could 01:44  
4 have cotton aphid, I could have green bug, they're 01:44  
5 all aphids, so if you want to write product 01:45  
6 literature that is understandable by your target 01:45  
7 audience, you may not use the different species, you 01:45  
8 use -- you test it on a variety of species and then 01:45  
9 lump it under an umbrella call aphids in that 01:45  
10 example. 01:45  
11 Q. And that would not necessarily be a 01:45  
12 replication, that would be a different kind of test 01:45  
13 to make sure it works equally across different 01:45  
14 species; correct? 01:45  
15 A. Yeah, replication is a different concept 01:45  
16 than what I just discussed. 01:45  
17 Q. Okay. So you haven't seen a 01:45  
18 peer-reviewed study where -- where what they did was 01:45  
19 replicate a test using a different species; right? 01:45  
20 A. No, in the true sense -- in the most -- 01:45  
21 yes, I'll stop there because -- now I got to keep 01:45  
22 going. 01:45  
23 Just because in the commonly way -- 01:45  
24 in the common way that scientists use the word 01:45  
25 replication, it's exactly as you say, they should -- 01:45

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1 all replicates should be identical. 01:46  
2 Q. Was this -- have you seen that this test 01:46  
3 was replicated? 01:46  
4 A. No. 01:46  
5 Q. In the course of your work at Dow, did 01:46  
6 you require that tests -- that -- let me rephrase. 01:46  
7 When you relied on data from testing 01:46  
8 at Dow, did you ever rely on tests that were not 01:46  
9 replicated? 01:46  
10 A. Yes. 01:46  
11 Q. Okay. Can you please turn to the page 01:46  
12 with the chart titled, "Test Result"? 01:46  
13 A. Okay. 01:46  
14 Q. Okay. Were the spiders, ants, and 01:46  
15 roaches all in the same chamber in this test? 01:46  
16 A. I got to go back to the methods and make 01:46  
17 sure. 01:47  
18 Yes, they were. I've kind of forgot 01:47  
19 the question. You asked whether -- 01:47  
20 Q. I just asked whether they were in the 01:47  
21 same chamber? 01:47  
22 A. Yes, they were. 01:47  
23 Q. Now, on this page at the bottom it says, 01:47  
24 "Remarkd quantity of tunnel was counted as 01:48  
25 Chamber B." 01:48

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1 Do you see that? 01:48  
2 A. I do. 01:48  
3 Q. We don't know how many -- what were 01:48  
4 observed in the tunnel; right? 01:48  
5 A. It doesn't call it out. I suspect you 01:48  
6 could do some arithmetic to figure it out. 01:48  
7 Q. How would you do that? 01:48  
8 A. Well, you would look at the -- the number 01:48  
9 of insects that were in the test and if they were not 01:48  
10 accounted for in the counts. 01:48  
11 Q. Yeah, but it says, "The quantity of 01:48  
12 tunnel was counted as Chamber B." 01:48  
13 Do you see that? 01:48  
14 A. I do. Okay. So, yeah, let me -- let me 01:48  
15 correct myself. 01:48  
16 They apparently counted what was in 01:48  
17 the tunnel, and they simply included it with Chamber 01:48  
18 B, which was the -- the chamber without the pest 01:48  
19 repeller. 01:48  
20 Q. Is it your understanding that that was 01:48  
21 done in all the Chinese tests? 01:48  
22 A. I'd have to look at each one. I don't 01:49  
23 know. 01:49  
24 Q. Is it relevant whether or not they did 01:49  
25 that in a given test? 01:49

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1 A. Yes. 01:49	1 A. For that particular day, yes. 01:51
2 Q. Would it have been improper if they 01:49	2 Q. And for the next day as well? 01:51
3 hadn't done that? 01:49	3 A. For the count -- well. 01:51
4 MR. OSTOJIC: Object to form. 01:49	4 Q. Does that -- does that concern you in 01:51
5 BY THE WITNESS: 01:49	5 terms of your relying on this study? 01:51
6 A. Yeah, the word improper, it -- if they 01:49	6 A. It's not the best procedure, but I didn't 01:51
7 set a rule in the beginning that says where they're 01:49	7 rely just on this particular test to draw opinions. 01:51
8 going to count something in a -- that's in a tunnel, 01:49	8 Q. Standing alone could you -- could you 01:51
9 then you abide by the rule. 01:49	9 deduce whether or not the repellents are effective 01:51
10 BY MR. KOPEL: 01:49	10 based on this test? 01:51
11 Q. Well, do you see the next sentence says, 01:49	11 A. Well, for that, if you don't mind, I'll 01:51
12 "Add a new spider, ants, and roaches according to the 01:49	12 go back to my report which gives me the statistics. 01:52
13 quantity of loss the next day." 01:49	13 Q. That's no problem, but while you're 01:52
14 Do you see that? 01:49	14 reviewing the statistics, can you please take a look 01:52
15 A. Yes. 01:49	15 as to whether you accounted for the quantity of lost 01:52
16 Q. Was that a proper thing for them to do? 01:49	16 that were added and where you count -- which chamber 01:52
17 A. I would not have done that. 01:49	17 you counted them as being added to? 01:52
18 Q. Does that call the data that came from 01:49	18 MR. OSTOJIC: Object to form. 01:52
19 the study into question? 01:49	19 BY THE WITNESS: 01:52
20 MR. OSTOJIC: Object to form, but go ahead. 01:49	20 A. I took the -- in my statistical analysis 01:53
21 BY THE WITNESS: 01:49	21 I took the data, the counts that were provided per 01:53
22 A. I don't think seriously. 01:49	22 day, each day for roaches -- well, for all of them. 01:53
23 BY MR. KOPEL: 01:49	23 Q. Were the repellents effective at driving 01:53
24 Q. Well, let's take a step back. 01:49	24 out spiders, ants, or roaches for any day of the 01:53
25 When they replaced them, which 01:49	25 study? 01:53
Page 138	Page 140
1 chamber did they put them in? 01:49	1 A. Yes. 01:53
2 A. I'd have to assume they put them in the 01:50	2 Q. Okay. So on Day 1 had they driven out 01:53
3 one where they were originally released, where they I 01:50	3 all the spiders, ants, or roaches? 01:53
4 think originally released they said they split them 01:50	4 MR. OSTOJIC: I'm sorry. Can you repeat the 01:53
5 50/50, so more than likely they put them back in the 01:50	5 question? 01:53
6 same way that they introduced the original 01:50	6 MR. KOPEL: Sure. 01:53
7 population. 01:50	7 BY MR. KOPEL:
8 Q. I -- I don't understand. 01:50	8 Q. On Day 1 had the repeller driven out all 01:53
9 So, in other words, if you look at 01:50	9 the spiders, ants, and roaches? 01:53
10 Day 3, right, so it looks like they added three 01:50	10 MR. OSTOJIC: All? 01:54
11 roaches. Which chamber were the three roaches added 01:50	11 MR. KOPEL: That's what I said. 01:54
12 to? 01:50	12 BY THE WITNESS: 01:54
13 A. Wait a minute. Okay. Day 3 under 01:50	13 A. Are you -- I need a clarification. 01:54
14 testing, the third -- 01:50	14 When you say, "spiders, ants, and 01:54
15 Q. Test Result Day 3, there's a -- at the 01:50	15 roaches," are you talking about the combined species, 01:54
16 bottom of the chart it says, "Quantity of loss." 01:50	16 or are you asking me for spiders alone, for ants 01:54
17 Do you see that? 01:50	17 alone, for roaches alone? 01:54
18 A. Yes. 01:50	18 BY MR. KOPEL: 01:54
19 Q. So it looks like they put in 3 new 01:50	19 Q. The latter. 01:54
20 roaches on Day 3; right? 01:50	20 A. Okay. All right. And then -- sorry. 01:54
21 A. That's what it looks like, yes. 01:50	21 Repeat the question again because I'm ready to 01:54
22 Q. Okay. Which chamber were they put in? 01:50	22 answer, but I need to know -- 01:54
23 A. It's not readily apparent. 01:50	23 Q. Sure. 01:54
24 Q. Okay. Does it matter which chamber they 01:51	24 Would you agree that there is a 01:54
25 put them in? 01:51	25 difference between a statistically significant effect 01:54
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1 and a biologically or commercially relevant effect? 01:54  
 2 MR. OSTOJIC: Object to form. 01:54  
 3 Go ahead. 01:54  
 4 BY THE WITNESS: 01:54  
 5 A. One usually follows the other, but not 01:54  
 6 necessarily do you need to have statistically 01:54  
 7 significant to commercialize something. 01:54  
 8 BY MR. KOPEL: 01:54  
 9 Q. Okay. And throughout the course of this 01:54  
 10 test there were always spiders in Chamber A; correct? 01:54  
 11 A. Yes. 01:55  
 12 Q. Throughout the course of this test there 01:55  
 13 were always ants in Chamber A; correct? 01:55  
 14 A. Correct. 01:55  
 15 Q. Throughout the course of this test there 01:55  
 16 were always roaches in Chamber A; correct? 01:55  
 17 A. Yes. 01:55  
 18 Q. Now, if these results were seen in a 01:55  
 19 residential home using a repeller, do you think a 01:55  
 20 consumer would be satisfied with the product? 01:55  
 21 A. Yeah, I -- 01:55  
 22 MR. OSTOJIC: Object to form, foundation. 01:55  
 23 May call for speculation depending upon the consumer 01:55  
 24 but. 01:55  
 25

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1 BY THE WITNESS: 01:55  
 2 A. And I would go back to the chi-square 01:55  
 3 test that I did, and even though you see that there 01:55  
 4 are those pests in every day, the difference between 01:55  
 5 the number Chamber A and those in Chamber B is 01:55  
 6 significantly different in most cases. 01:55  
 7 BY MR. KOPEL:  
 8 Q. Do you think that if you showed a 01:55  
 9 consumer a chi-square test to show a -- a 01:55  
 10 statistically significant difference, they would be 01:55  
 11 satisfied despite seeing the presence of each of 01:55  
 12 these pests on every day using a repeller? 01:56  
 13 A. Well -- 01:56  
 14 MR. OSTOJIC: Wait, wait. Let me make an 01:56  
 15 objection here. 01:56  
 16 Object to form, foundation, 01:56  
 17 irrelevant, inconsequential question, and also may 01:56  
 18 call for speculation as to any specific consumer. 01:56  
 19 But go ahead and answer. 01:56  
 20 BY THE WITNESS: 01:56  
 21 A. Well, that's kind of what I was going to 01:56  
 22 say. It depends when the consumer -- when you take 01:56  
 23 the population down from what it started at to a 01:56  
 24 lower number, which is in the chambers with the pest 01:56  
 25 repeller, the consumer may not see them. 01:56

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1 BY MR. KOPEL: 01:56  
 2 Q. Why wouldn't a consumer see them? 01:56  
 3 A. I don't know that they would. I'm saying 01:56  
 4 they may not see them. You have fewer numbers to be 01:56  
 5 seen. They could be hiding. 01:56  
 6 Q. So when you say, "to drive out" do you 01:57  
 7 think that just means a statistically significant 01:57  
 8 effect? 01:57  
 9 A. That's a -- 01:57  
 10 MR. OSTOJIC: Object to form. 01:57  
 11 But go ahead. 01:57  
 12 BY THE WITNESS: 01:57  
 13 A. That's an objective way to show a 01:57  
 14 difference. 01:57  
 15 BY MR. KOPEL: 01:57  
 16 Q. Okay. And do you agree that a consumer 01:57  
 17 might view the words differently than a scientist? 01:57  
 18 BY THE WITNESS: 01:57  
 19 A. I don't know. 01:57  
 20 MR. OSTOJIC: Same objections as before, 01:57  
 21 including speculation. 01:57  
 22 Go ahead. 01:57  
 23 BY THE WITNESS: 01:57  
 24 A. I have no way of knowing. 01:57  
 25

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1 BY MR. KOPEL: 01:57  
 2 Q. I thought you were an expert on this 01:57  
 3 topic? 01:57  
 4 A. I am. 01:57  
 5 Q. You are? 01:57  
 6 A. What topic are you talking about? 01:57  
 7 Q. Well, don't -- didn't you say you were an 01:57  
 8 expert in terms of labeling claims? 01:57  
 9 A. Yes. 01:57  
 10 Q. Okay. So would a consumer review this 01:57  
 11 labeling claim in the same manner as a scientist? 01:57  
 12 MR. OSTOJIC: Would or should? I -- same 01:57  
 13 objections as before. 01:57  
 14 BY THE WITNESS: 01:57  
 15 A. I don't understand the relevancy. Maybe 01:57  
 16 ask it a different way. 01:57  
 17 BY MR. KOPEL: 01:57  
 18 Q. Would a consumer review the claim drives 01:58  
 19 pests out the same way as a scientist would review 01:58  
 20 that claim? 01:58  
 21 A. I don't know the scientist, I don't know 01:58  
 22 the consumer. 01:58  
 23 Q. Do you think a consumer has statistical 01:58  
 24 significance in mind when they read that claim? 01:58  
 25 MR. OSTOJIC: Same objections. 01:58

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37 (Pages 142 - 145)

1 BY THE WITNESS: 01:58	1 A. Had they been -- yes, but the degree to 02:00
2 A. They may if they went to university and 01:58	2 which I don't know. 02:00
3 had statistic class. 01:58	3 Q. Well -- 02:00
4 BY MR. KOPEL: 01:58	4 A. Because the differences are highly 02:00
5 Q. Given that there were uncertainties of 01:58	5 significant for spiders and -- let's see -- ants 02:00
6 large numbers of new pests added in the middle of the 01:58	6 under Point 1, Probably Point 1; for roaches, highly 02:00
7 test and you don't know what chamber they're added 01:58	7 significant; and for the combination of all pests, 02:00
8 to, are you really comfortable relying on this test? 01:58	8 highly significant differences in Chamber A and 02:00
9 A. Yes. 01:58	9 Chamber B. 02:00
10 MR. OSTOJIC: Asked and answered. 01:58	10 Q. But you haven't done the calculations to 02:00
11 But go ahead. 01:58	11 figure that out; have you? 02:00
12 BY THE WITNESS: 01:58	12 A. I said that what I did was take the 02:00
13 A. Yes again. 01:58	13 numbers as presented there. I did not take into 02:00
14 BY MR. KOPEL: 01:58	14 account the quantity lost as they describe it. 02:00
15 Q. Do you think that this would pass muster 01:58	15 Q. Was that a mistake? 02:01
16 in peer review? 01:58	16 A. No. 02:01
17 MR. OSTOJIC: Object to form. 01:58	17 Q. Now, if you look at roaches, it looks 02:01
18 But go ahead. 01:58	18 like they added 12 roaches over the course of the 02:01
19 BY THE WITNESS: 01:58	19 test. 02:01
20 A. It depends on the peers, it depends on 01:58	20 Do you see that? 02:01
21 the publication. 01:58	21 A. 9 plus 3. Yes. 02:01
22 BY MR. KOPEL: 01:58	22 Q. And then they had 16 at the end of the 02:01
23 Q. Would you have relied on a test like this 01:58	23 test. 02:01
24 in the course of your work at Dow? 01:58	24 Do you see that on Day 7? 02:01
25 A. No. 01:58	25 A. Had 16 roaches in Chamber B, yes, I see 02:01
Page 146	Page 148
1 Q. Why not? 01:58	1 that. 02:01
2 A. Too many unanswered questions. 01:58	2 Q. Oh, excuse me. You're right. 02:01
3 Q. So why are you more comfortable in the 01:58	3 Okay. So they had 20 roaches total 02:01
4 course of your work here relying on it? 01:58	4 on Day 7; correct? 02:01
5 A. Because the -- I -- because I've worked 01:59	5 A. Yes. 02:01
6 with Dow Chemical, I know the rigor with which they 01:59	6 Q. Okay. So the majority of the roaches 02:01
7 require their data to be obtained and used and 01:59	7 were added during the course of that test; correct? 02:01
8 analyzed. 01:59	8 A. Yes. 02:01
9 I don't know the rigor from 01:59	9 Q. That doesn't concern you though; right? 02:01
10 Bell + Howell case -- or the Bell + Howell culture. 01:59	10 MR. OSTOJIC: Same objection. Also asked and 02:01
11 Q. Was there a reason -- 01:59	11 answered a couple times. 02:01
12 A. They're different companies. 01:59	12 But go ahead. 02:01
13 Q. Was there a reason that Dow Chemical had 01:59	13 BY THE WITNESS: 02:01
14 a heightened -- a very rigorous standard? 01:59	14 A. No. 02:01
15 MR. OSTOJIC: Object to form. 01:59	15 BY MR. KOPEL: 02:01
16 Go ahead. 01:59	16 Q. Okay. Can you please take a look at the 02:01
17 BY THE WITNESS: 01:59	17 document marked as Exhibit 9. 02:01
18 A. Well, I didn't set the standard. I only 01:59	18 MR. OSTOJIC: Did you say 9? 02:02
19 complied with it. They wanted to reduce variability 01:59	19 THE WITNESS: Yeah, I don't have a 9. 02:02
20 and be able to write labels and literature that was 01:59	20 MR. KOPEL: I misspoke. Thanks for your 02:02
21 unquestionable. 01:59	21 correction. It was marked as Exhibit 4. 02:02
22 BY MR. KOPEL: 01:59	22 BY MR. KOPEL: 02:02
23 Q. Do you agree that had the -- these new 01:59	23 Q. And this is a QMANN test? 02:02
24 pests been added to Chamber B, that would skew the 02:00	24 A. Yes, it is. 02:02
25 test results? 02:00	25 Q. Okay. So you have the document which is 02:02
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1 marked as Exhibit 4?	02:02	1 misunderstanding each other.	02:04
2 A. Yes.	02:02	2 A. Okay.	02:04
3 Q. Have you seen it before?	02:02	3 Q. Let me please clarify.	02:04
4 A. Yes.	02:02	4 Typical American homes tend to have	02:04
5 Q. What is it?	02:02	5 heat during the wintertime; correct?	02:04
6 A. A Test Report from QMANN Quality Service	02:02	6 A. Yes, I'd agree.	02:04
7 Company. Product Description, Bell + Howell	02:03	7 Q. Okay. Do you agree that the temperature	02:05
8 Ultrasonic Test Repeller. Test Period, November 1	02:03	8 that the test was conducted might affect the movement	02:05
9 through November 19, 2010. The purpose of test,	02:03	9 of the pest tested?	02:05
10 Model 50161 Pest Repeller Effective Coverage.	02:03	10 A. Yes.	02:05
11 Q. Now, I'm sorry. I have to ask you some	02:03	11 Q. Okay. So would you agree with me that it	02:05
12 of the same questions here as I've asked already, and	02:03	12 would be hard to take the results of this test in	02:05
13 hopefully we can move through it quickly.	02:03	13 order to render an opinion about what the outcome	02:05
14 You don't know what species of mice,	02:03	14 would have been under conditions in typical American	02:05
15 spiders, and roaches were used in this test; correct?	02:03	15 homes given that American homes would be a different	02:05
16 A. No.	02:03	16 temperature than this test was done at?	02:05
17 Q. Did you know that Ms. Feuerstein	02:03	17 MR. OSTOJIC: Object. Form. Also, it	02:05
18 testified that it was -- there was no heat on during	02:03	18 misstates the evidence as to the temperature because	02:05
19 the -- the -- while this test was operational?	02:03	19 the temperature is here on the report, and that it's	02:05
20 A. I do not recall that.	02:03	20 different than American homes.	02:05
21 Q. If -- if that were true, would that be a	02:03	21 BY MR. KOPEL:	02:05
22 problem?	02:03	22 Q. Okay. And here, too, mice, spiders, and	02:05
23 MR. OSTOJIC: Object to form, foundation,	02:03	23 roaches were tested at the same time; correct?	02:05
24 incomplete.	02:03	24 A. It seems like that's what they mean by	02:06
25 But go ahead.	02:03	25 the footnote: "Put mice, spiders, and roaches in	02:06
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1 BY THE WITNESS:	02:03	1 rooms."	02:06
2 A. Not in comparing, no, because the same --	02:03	2 It does not say one way or the other	02:06
3 if there wasn't any heat in what they're labeling	02:04	3 whether they were together or different.	02:06
4 No. 7, there wasn't any heat in No. 8, so everything	02:04	4 Q. I think I can -- might be able to point	02:06
5 is the same.	02:04	5 you to something that might refresh your recollection	02:06
6 BY MR. KOPEL:	02:04	6 on this.	02:06
7 Q. All right. Would the -- would the -- the	02:04	7 If you look on the first page,	02:06
8 data from this test necessarily be the same under	02:04	8 Testing Procedures, No. 1A?	02:06
9 circumstances in a typical American residential home	02:04	9 A. Yep. There you go. Exactly you're	02:06
10 which would have heat?	02:04	10 right.	02:06
11 A. Could be. I have no way of knowing.	02:04	11 Q. So -- and just for purposes of the	02:06
12 Q. So it would be speculative one way or the	02:04	12 record, I'm right that they were tested at the same	02:06
13 other; correct?	02:04	13 time; correct?	02:06
14 MR. OSTOJIC: Object. Form, foundation,	02:04	14 A. Correct.	02:06
15 incomplete hypothetical.	02:04	15 Q. Okay. Now, if you look at Testing	02:06
16 But go ahead.	02:04	16 Condition, it says, "All gap and window door properly	02:06
17 BY THE WITNESS:	02:04	17 sealed with wooden board and taped securely."	
18 A. Well, it's not speculative that the cold	02:04	18 Do you see that?	02:06
19 was the same as you said. You told me. I didn't	02:04	19 A. "All gaps and window" -- yes.	02:06
20 recall that in 7 and 8. That's not speculative. It	02:04	20 Q. Was that a problem in this protocol, or	02:06
21 was that way.	02:04	21 was that a proper thing to do?	02:06
22 And what you're -- you're	02:04	22 A. For the purposes of spiders and roaches,	02:06
23 speculating whether they added heat to it.	02:04	23 I don't think that it matters.	02:07
24 BY MR. KOPEL:	02:04	24 Q. Well, is it a proper thing to do or was	02:07
25 Q. No, I'm sorry. I think we're	02:04	25 it an improper thing to do?	02:07
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1 MR. OSTOJIC: Object. Asked and answered. 02:07	1 equilibrated and found their way to be equal between 02:09
2 Go ahead. 02:07	2 the two rooms. 02:09
3 BY THE WITNESS: 02:07	3 So I go back to -- this is QMANN 02:09
4 A. For what they tried -- were trying for -- 02:07	4 2 -- 02:09
5 for the purposes of this test, they -- what's the 02:07	5 Q. Okay. So let's take a look. On Pretest 02:09
6 right word -- deduced -- they -- they set the 02:07	6 Day 1 were the mice equal in the two rooms? 02:09
7 protocol the way they did to achieve the purposes of 02:07	7 A. All right. I got -- well, I'm not 02:10
8 the test. 02:07	8 testifying on mice. 02:10
9 So I have to say that they -- by 02:07	9 Q. Well, you can receive the numbers, 02:10
10 them properly sealing the doors and a wooden board, 02:07	10 though; right? 02:10
11 taped, that -- that bullet point, I'd say, yeah, it 02:07	11 A. I can see the numbers. 02:10
12 was proper under their conditions and for what they 02:07	12 Q. Okay. Were they equal? 02:10
13 wanted to do. 02:07	13 A. They're -- 3, 3, and 15. 2 are equal, 1 02:10
14 BY MR. KOPEL: 02:07	14 is not. Whether they're statistically significant -- 02:10
15 Q. And -- and when you say what they wanted 02:07	15 oh, wait a minute. 02:10
16 to do, are you referring to testing the efficacy of 02:07	16 Q. I think --
17 the Bell + Howell repellers against mice, spiders, 02:07	17 A. That's down the -- 02:10
18 and roaches; correct? 02:07	18 Q. Yes. 02:10
19 A. I'm going back to the purpose of the test 02:07	19 A. Sorry. 3 and 12 -- 3 and -- no, they 02:10
20 to test pest repeller effective coverage. That's 02:08	20 were not equal. 02:10
21 must be what they were trying to answer. 02:08	21 Q. Do you have any understanding of what 02:10
22 Q. And effective coverage means the 02:08	22 might have caused these swings back and forth with a 02:10
23 repellency coverage; correct? 02:08	23 disproportionate number of mice in Room 8 the first 02:10
24 A. Yes, I would assume so. 02:08	24 few days, and then a disproportionate number of mice 02:10
25 Q. Okay. Now, all the -- all the mice, 02:08	25 in Room 7? 02:10
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1 spiders, and roaches were released into Room 7 at the 02:08	1 A. No, I'm not testifying with mice. I 02:10
2 same time.	2 don't know. 02:10
3 Do you see that? 02:08	3 Q. Okay. So on Pretest Day 1 for spiders, 02:10
4 A. That's what it says, yes. 02:08	4 were they equal? 02:10
5 Q. Was that an improper thing to do in this 02:08	5 A. 6 and 0, 6 and 0. 02:10
6 protocol that they were put into Room 7 all at the 02:08	6 They were not statistically equal. 02:10
7 same time? In other words, rather than half of them 02:08	7 Q. And then, in fact, on Pretest Day 3 there 02:10
8 in Room 7, half in Room 8? 02:08	8 was 10 spiders in Room 7 and 0 in Room 8; correct? 02:11
9 A. It's not the only ones that did it that 02:08	9 A. Yes. 02:11
10 way. I think Dr. Potter did his that way too. 02:08	10 Q. Okay. So they were not equal there? 02:11
11 Q. Was it improper for them to do this? 02:08	11 A. They were not equal. 02:11
12 A. It's just the -- it's their protocol. 02:08	12 Q. And -- and on Pretest Days 1 and 3, there 02:11
13 Q. Was that improper? Yes or no? 02:08	13 was 20 roaches in Room 7 with 0 in Room 8. 02:11
14 A. No, not improper to achieve their 02:08	14 Do you see that? 02:11
15 purpose. 02:08	15 A. Yes. 02:11
16 Q. Was it improper when Dr. Potter did it? 02:08	16 Q. All right. They weren't equal; right? 02:11
17 A. I think I put that in my report. 02:09	17 A. No. 02:11
18 Q. Okay. So when they did it, it was okay; 02:09	18 Q. Okay. Was it improper for them to 02:11
19 when Dr. Potter did it, it was a problem? 02:09	19 release all the pests in the room with the repeller 02:11
20 A. Their -- it would have been better to -- 02:09	20 at the outset of the test? 02:11
21 well, let me look at their post, their pretest. 02:09	21 A. Again, improper -- the word improper is 02:11
22 Because it all comes down to -- 02:09	22 subjective. It depends on the purpose of the test. 02:11
23 wherever they put them in the -- it really doesn't 02:09	23 I can imagine that a home situation 02:11
24 matter, I think, in what chamber they put them as 02:09	24 has a -- has different pests in it at the same time, 02:11
25 long as in their pretest period these pests 02:09	25 and perhaps they were going after -- trying to deduce 02:11
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1 something from that -- that possibility. 02:11	1 BY MR. KOPEL: 02:14
2 Q. Is it possible that what they were 02:12	2 Q. Okay. I get it. 02:14
3 testing is the ability of the repeller to drive the 02:12	3 A. He did not have spiders plus roaches. 02:14
4 pests out -- 02:12	4 Q. So perhaps we're miscommunicating. 02:14
5 A. It's possible. 02:12	5 I'm talking about the release of the 02:14
6 Q. -- of the room? 02:12	6 pest into the room with the repeller. 02:14
7 A. Is it possible that's what Dr. Potter was 02:12	7 A. Okay. What's the question? 02:14
8 testing. 02:12	8 Q. In this test they released all the pests 02:14
9 MR. OSTOJIC: Objection to form. May call 02:12	9 into the room with the repeller rather than doing 02:14
10 for speculation as to possibilities, but go ahead. 02:12	10 50/50? 02:14
11 BY THE WITNESS: 02:12	11 A. That's what they said. 02:14
12 A. Well, Dr. Potter went further, well 02:12	12 Q. Was that an appropriate way to test 02:14
13 beyond what the label instructions say, and he -- 02:12	13 whether it would drive the pests out of that room? 02:14
14 he -- his test was designed to drive -- to determine 02:12	14 A. It's not a un -- yes, because they had 02:14
15 whether the pest repeller would drive pests out of a 02:12	15 pretests -- they had a pretest period which had 02:14
16 building, and that's why he put those harborages in 02:12	16 repeller not on, and that was to give the pests an 02:14
17 there, and that goes well beyond what the claims are 02:12	17 opportunity to move freely between the chambers. 02:14
18 on the -- in the product literature. 02:12	18 Q. And we just looked at the pretests, and 02:14
19 BY MR. KOPEL: 02:12	19 it looked like -- at least with regards to spiders 02:14
20 Q. Okay. And I -- and I accept that you 02:12	20 and roaches -- by the end of the pretest they were 02:14
21 have lots of criticisms of Dr. Potter, and I do plan 02:12	21 all in Room 7; correct? 02:14
22 on getting to that, and I'll give you as much of an 02:12	22 A. By the end of the pretest, which would be 02:15
23 opportunity as you'd like to talk about it, but I 02:12	23 Day 3, yes, they were all in Room 7. 02:15
24 just want to focus you in on the fact they were all 02:12	24 Q. Okay. So do you still contend that this 02:15
25 released into the room with the repeller. 02:12	25 was proper, but the fact that Dr. Potter released 02:15
Page 158	Page 160
1 And I believe you just testified 02:13	1 them into the room with the repeller was improper? 02:15
2 that it's possible that what they were trying to test 02:13	2 MR. OSTOJIC: Object. Mischaracterizes his 02:15
3 in this QMANN report was whether or not the repeller 02:13	3 testimony. Asked and answered and form. 02:15
4 could drive them out of that room, and I asked if 02:13	4 But I'd go ahead if you want to 02:15
5 that's possible that Dr. Potter was trying to do the 02:13	5 clear it up for him. 02:15
6 same thing, was trying to test the same thing? 02:13	6 BY THE WITNESS: 02:15
7 MR. OSTOJIC: Object to form. 02:13	7 A. I did not say -- and if I did, I have to 02:15
8 Was there a question, or is that 02:13	8 qualify -- Dr. Potter did not release them in the 02:15
9 just a narrative? 02:13	9 same way that QMANN released them. He released them 02:15
10 MR. KOPEL: Yeah, the question -- I asked -- 02:13	10 in a harborage, and that harborage affected the 02:15
11 I repeated what I asked. 02:13	11 distribution during the pretesting period for his 02:15
12 BY MR. KOPEL:	12 tests, i2LR test. 02:15
13 Q. I asked if it's possible that Dr. Potter 02:13	13 BY MR. KOPEL: 02:16
14 was also testing whether or not the repeller would 02:13	14 Q. Okay. So I -- just -- just to make sure 02:16
15 drive them out of that room? 02:13	15 we understand each other, the focus of your criticism 02:16
16 MR. OSTOJIC: Object. I don't think it's an 02:13	16 of Dr. Potter was on the harborage rather than the 02:16
17 understandable question, but -- may call for 02:13	17 fact that they were released into the room with the 02:16
18 speculation as to the form of the question as well, 02:13	18 repeller; is that correct? 02:16
19 but go ahead if you understand it. 02:13	19 MR. OSTOJIC: Object to form as far as saying 02:16
20 BY THE WITNESS: 02:13	20 it's the only criticism. 02:16
21 A. Well, but what you connected it to, that 02:13	21 But go ahead and answer. 02:16
22 question in the very beginning was: Dr. Potter 02:13	22 BY THE WITNESS: 02:16
23 trying -- in my words -- trying to test spiders plus 02:13	23 A. Yes, that's one of them. That's a big 02:16
24 roaches, and he did -- 02:13	24 one. 02:16
25	25
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1 BY MR. KOPEL: 02:16	1 period did not allow them to distribute equally, so 02:18
2 Q. Yeah, and I'm just trying to understand 02:16	2 how do you correct for that? 02:18
3 if part of your criticism, separate and apart from 02:16	3 You either throw it out and start 02:18
4 the harborage, was that they were released into the 02:16	4 over because something is causing them to stay where 02:18
5 room with the repeller rather than being released 02:16	5 they are, which is what Dr. Potter did; or another 02:18
6 50/50? 02:16	6 possibility is you let the pretest run longer until 02:19
7 A. No. Because he -- if he had a adequate 02:16	7 they do equilibrate. 02:19
8 pretest, they would have distributed equally. 02:16	8 Q. They didn't do that here; right? 02:19
9 Q. But they -- 02:16	9 A. They did not. 02:19
10 A. Unfortunately they didn't have that. 02:16	10 Q. Can you please look at the document 02:19
11 Q. They didn't distribute equally here; 02:16	11 marked as Exhibit Borth 5. 02:19
12 correct? 02:16	12 A. Okay. I have it. What do you want me to 02:19
13 A. No, not in -- one day they did, one day 02:16	13 look at? 02:19
14 they didn't. 02:16	14 Q. You know what. I'm sorry. I have one 02:19
15 Q. Two days they didn't; right? 02:16	15 more question about -- about that last document, 02:19
16 A. Well, yes, if you want to count Pretest 02:16	16 Exhibit 4, before we go on to 5. 02:19
17 Day 1, yes. 02:16	17 Can you see, based on this document, 02:19
18 Q. Do you see from the diagram here that the 02:16	18 that they were adding pests throughout the course of 02:19
19 exit area is significantly bigger than the treatment 02:17	19 the experiment? 02:19
20 area? 02:17	20 A. I see that they added -- it looks like 02:20
21 A. I don't know if it's significantly 02:17	21 they added 5 spiders on Pretest Day 3 and 4; roaches 02:20
22 bigger. It's bigger. 02:17	22 on Pretest Day 3. 02:20
23 Q. Was that -- was that a proper comparison 02:17	23 Q. Well, let's take a look at the roaches, 02:20
24 given the disparate sizes of the rooms? 02:17	24 please; right. 02:20
25 A. I don't think that's important. 02:17	25 So if you look at Test Day 2, we 02:20
Page 162	Page 164
1 Q. So given the different sizes of the room, 02:17	1 have a total of 17 roaches; correct? 02:20
2 would you still expect them to distribute in absence 02:17	2 A. Yes. 02:20
3 of a repeller 50/50? 02:17	3 Q. Okay. And then Test Day 3 we have 19 02:20
4 MR. OSTOJIC: Object to form. 02:17	4 roaches; correct? 02:20
5 BY THE WITNESS: 02:17	5 A. How many? 02:20
6 A. Yes, I would expect during the 3 days of 02:17	6 Q. 19. 02:20
7 pretest that you would see a nonsignificant 02:17	7 A. Pretest Day -- 02:20
8 difference in the distribution between 7 -- Room 7 02:17	8 Q. Nope. Test Day 2 to Test Day 3? 02:20
9 and Room 8. 02:17	9 A. Test Day 2 -- under roaches? 02:20
10 BY MR. KOPEL: 02:17	10 Q. Yes. Test Day 2 they had 17, Test Day 3 02:20
11 Q. Now, given the different sizes of the 02:17	11 they had 19. 02:20
12 room, why wouldn't you expect more to be in Room 8 02:17	12 MR. OSTOJIC: Object to form, foundation. 02:20
13 than Room 7? 02:17	13 BY MR. KOPEL: 02:20
14 A. I -- I would not because they're taking 02:17	14 Q. Do you see that? 02:20
15 their measurements once daily, and, at least for 02:18	15 A. All right. Let me -- I think I can look 02:20
16 spiders, I don't believe they moved that fast. 02:18	16 at -- you're not talking pretest anymore. You're 02:20
17 Q. So you think that there wasn't really 02:18	17 down in what's labeled Undergoing Test? 02:20
18 adequate time for the spiders to make their way into 02:18	18 Q. Yes, yes. 02:21
19 Room 8? 02:18	19 A. Undergoing Tests 3 and 4 you said? 02:21
20 A. That could be a reason. 02:18	20 Q. No, I'm looking at Days 2 and 3. 02:21
21 Q. Does that -- does that suggest that there 02:18	21 A. 2 and 3. Okay. Undergoing Test 2, 17 02:21
22 was a problem with the control here because they were 02:18	22 total between Rooms 7 and 8; and Test -- Day 3, 19 02:21
23 only given 3 days? 02:18	23 total between Room 7 and 8. 02:21
24 A. Well, there -- there's an issue. There's 02:18	24 Q. It looks like they added; right? 02:21
25 an issue because in this particular test the pretest 02:18	25 MR. OSTOJIC: Object to form, foundation. 02:21
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1 BY THE WITNESS: 02:21	1 Q. Well, we've got 6 rooms here; right? 02:23
2 A. 17 -- there was 17 one day. There were 02:21	2 A. They're -- yes, 1 through 6. 02:23
3 19 the next day. It appears that they added. 02:21	3 Q. In the absence of a repeller, would you 02:24
4 BY MR. KOPEL: 02:21	4 expect that there would be equal amounts in each 02:24
5 Q. If you look at Day 7, there is a total of 02:21	5 room? 02:24
6 21 roaches. 02:21	6 A. Given enough time -- you didn't tell me 02:24
7 Do you see that? 02:21	7 where they were introduced, but if you can be more 02:24
8 A. Yes, I do. 02:21	8 specific -- 02:24
9 Q. And that's more than they even started 02:21	9 Q. Sure. 02:24
10 the experiment with; right? 02:21	10 A. -- I might be able to be more confident 02:24
11 A. Yes. 02:21	11 in answering. 02:24
12 Q. Okay. Does any of this cause you any 02:21	12 Q. There were -- there were -- here they 02:24
13 concern in relying on this test? 02:21	13 were released into Room 3 at the same time; right? 02:24
14 A. It's hard -- it's difficult to make sense 02:21	14 It's under testing procedures 1A? 02:24
15 out of -- out of what they replaced and what they 02:21	15 A. Yes, correct. 02:24
16 didn't replace. 02:21	16 Q. So your null hypothesis is that 50 02:24
17 Is it a concern to me? Again, I -- 02:21	17 percent would stay in the Room 3, and the other 50 02:24
18 I used the numbers as they presented -- as they were 02:22	18 percent would distribute themselves among the other 5 02:24
19 presented in my analysis. 02:22	19 rooms? 02:24
20 Q. Okay. I only want to ask you a few 02:22	20 A. That's the testing hypothesis for 02:24
21 questions about Exhibit 5, please, because there's a 02:22	21 chi-square, yes. 02:24
22 lot of overlap between these tests, and I'll try to 02:22	22 Q. What's the basis for that? 02:24
23 go pretty quickly. 02:22	23 A. That they're either in the room where the 02:24
24 You don't know what species of pests 02:22	24 repeller is, or they're not in the room where the 02:24
25 were used in this experiment; right? 02:22	25 repeller is. 02:24
Page 166	Page 168
1 A. No. 02:22	1 Q. Despite the fact that there are 5 times 02:24
2 Q. You don't know what they were fed; do 02:22	2 as many rooms without repellers as the one with? 02:25
3 you? 02:22	3 A. Sure. 02:25
4 A. No. 02:22	4 Q. Don't you think it would have been more 02:25
5 Q. Now, for your statistical analysis did 02:22	5 proper to operate under the null hypothesis that they 02:25
6 you assume that -- did you assume that 50 percent of 02:22	6 would distribute themselves equally among the rooms? 02:25
7 the pests would remain in Room 3 and 50 would be 02:23	7 A. Would it be more proper? No. They're 02:25
8 outside of Room 3? 02:23	8 either in the room with the repeller, or they're not 02:25
9 A. That was the high -- null hypothesis, 02:23	9 in the room with the repeller. It's testing whether 02:25
10 yes. 02:23	10 the repeller repelled. 02:25
11 Q. Why? 02:23	11 Q. Okay. I want to talk to you, please, 02:26
12 A. Because they're either in the room where 02:23	12 about a -- a test that took place on July 7, 2014. 02:26
13 the repeller is, or they're not in the room where the 02:23	13 It's in the exhibit already marked as 13. 02:26
14 repeller is. 02:23	14 Are you having a hard time 02:26
15 Q. So despite the fact that there were 6 02:23	15 finding -- 02:26
16 rooms, you think that in absence of the repeller 02:23	16 A. No. Which one? 02:26
17 there might have otherwise been 50 percent in Room 3? 02:23	17 Q. July 7, 2014 -- 02:26
18 MR. OSTOJIC: Object to form. 02:23	18 A. Oh, I was --
19 BY THE WITNESS: 02:23	19 Q. The report ends with GZU002 -- 02:26
20 A. In the absence -- I'm restating for 02:23	20 A. I'm looking at the --
21 myself. 02:23	21 Q. It's an Intertek test. 02:26
22 BY MR. KOPEL: 02:23	22 A. That's -- that's important. Okay. 02:26
23 Q. Sure. 02:23	23 July 7, 2014, Intertek. Yes, I have 02:27
24 A. In the absence of a -- you got to reread 02:23	24 it. 02:27
25 it. 02:23	25 Q. Do you see it? 02:27
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1 A. Yes. 02:27	1 A. Not in the true sense. 02:29
2 Q. Okay. I'm sorry. But I have to ask you 02:27	2 Q. Would you have relied on any of these 02:29
3 a couple of the same questions again. 02:27	3 tests in the course of your work at Dow when 02:29
4 A. That's fine. 02:27	4 evaluating a product? 02:29
5 Q. What species of ants, spiders, and 02:27	5 A. I would. 02:29
6 roaches were used in this test? 02:27	6 MR. OSTOJIC: Objection. Asked and answered. 02:29
7 A. The testers did not say. 02:27	7 But go ahead. 02:30
8 Q. Did you do any research to see -- now 02:27	8 BY THE WITNESS: 02:30
9 that you had the style number, did you do any 02:27	9 A. I would consider them data. I don't 02:30
10 research to see what the speaker size of the style 02:27	10 throw out data. 02:30
11 number was in this test? 02:27	11 BY MR. KOPEL: 02:30
12 A. Wait a minute. Excuse me. We're on 02:27	12 Q. Okay. But -- but you never relied on -- 02:30
13 July -- Intertek, July 7, 2014? 02:27	13 take it back. 02:30
14 Q. Correct. 02:27	14 Okay. Can you please turn to 02:30
15 A. The one I'm looking at has mice and rats, 02:27	15 Page 2? 02:30
16 which I'm not providing testimony. 02:27	16 A. Yes. 02:30
17 Q. So there's another -- there's another one 02:27	17 Q. Okay. 02:30
18 on the same date in that same document. 02:27	18 A. It says here they used granulated sugar 02:30
19 A. Okay. There's the second one. Okay. So 02:28	19 as food. 02:30
20 the question was: Do I know the species of ants, 02:28	20 Do you see that? 02:30
21 spiders, and roaches? 02:28	21 MR. OSTOJIC: Objection. You looking at the 02:30
22 Again, the testers did not provide 02:28	22 picture? 02:30
23 that information. 02:28	23 THE WITNESS: Yeah, it -- 02:30
24 Q. So here the style number tested on was 02:28	24 MR. KOPEL: I'm sorry. I meant Page 3. That 02:30
25 50167. 02:28	25 was my mistake. 02:30
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1 Do you see that? 02:28	1 BY THE WITNESS: 02:30
2 A. Yes. 02:28	2 A. Okay. Under what -- point me to it. 02:30
3 Q. Okay. Did you do any research into the 02:28	3 BY MR. KOPEL: 02:30
4 speaker size of this model? 02:28	4 Q. Sure. It's a paragraph that starts with 02:30
5 A. Not speaker size, no. 02:28	5 the word "placed." 02:30
6 Q. Did you do any research into whether this 02:28	6 A. "Placed an equal amount of food and 02:30
7 model produced static or frequency -- or variable 02:28	7 water. Used granulated sugar as food." 02:30
8 outputs? 02:28	8 Yes, I see that. 02:30
9 A. I read what Mankin said about it. 02:28	9 Q. Okay. Was it appropriate for them to use 02:30
10 Q. Was this the same one he tested? 02:28	10 granulated sugar as food for the spiders? 02:30
11 A. Yes. 02:28	11 A. No. 02:30
12 Q. Given that it has variable outputs, 02:28	12 Q. Okay. Does that give you concern about 02:30
13 you're still comfortable extend -- basing your 02:29	13 Leo Lin and Sam Lin who performed this testing? 02:30
14 opinion that even Bell + Howell repellers with static 02:29	14 A. No. 02:31
15 outputs are effective based on this test? 02:29	15 Q. As to their qualifications? 02:31
16 MR. OSTOJIC: Object to form. 02:29	16 A. No. As I said before, the counts are 02:31
17 BY THE WITNESS: 02:29	17 what is important in what I used to form my opinion. 02:31
18 A. Yes. 02:29	18 You know, in the total of everything 02:31
19 BY MR. KOPEL: 02:29	19 else, the counts of spiders and roaches and ants on 02:31
20 Q. Okay. And this test was not replicated 02:29	20 the different days is what's important. 02:31
21 to your knowledge; was it? 02:29	21 Q. Okay. Here, too, they added new spiders, 02:31
22 A. Not in a true sense that's commonly used 02:29	22 roaches, and ants throughout the experiment; correct? 02:31
23 in science, no. 02:29	23 MR. OSTOJIC: Objection. Misstates the 02:31
24 Q. And all the tests that we've reviewed so 02:29	24 document. 02:31
25 far have not been replicated; correct? 02:29	25 But go ahead. 02:31
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1 BY THE WITNESS: 02:31	1 Q. And it's possible they're in the chamber 02:34
2 A. Throughout I don't see, but I do see 02:31	2 together at the same time that they were -- the -- 02:34
3 added new spiders, roaches, and ants next day at the 02:31	3 the spiders, roaches, and ants were affecting each 02:34
4 bottom of Table -- the only table they provide -- 02:31	4 other's movements within the chambers; correct? 02:34
5 Page 5 of 10. 02:31	5 MR. OSTOJIC: Object to form, foundation. 02:34
6 BY MR. KOPEL: 02:31	6 BY THE WITNESS: 02:34
7 Q. Were the spiders, roaches, and ants 02:31	7 A. It's possible, yes. We have no way of 02:34
8 tested together in this experiment? 02:32	8 knowing. 02:34
9 A. I don't see that. If you see it, please 02:32	9 BY MR. KOPEL: 02:34
10 point me to it. 02:32	10 Q. Well, spiders eat roaches; right? 02:34
11 Q. Sure. 02:32	11 A. Yes. 02:34
12 Well, if you look at the chart, 02:32	12 Q. So wouldn't you say it's pretty likely in 02:34
13 there is -- they report consumed food and consumed 02:32	13 that case that the spiders were affecting the 02:34
14 water. 02:32	14 movement of the roaches? 02:34
15 Do you see that? 02:32	15 A. No, I didn't say that -- 02:34
16 A. Yes. 02:32	16 MR. OSTOJIC: Objection to form and 02:34
17 Q. And they report one number for spiders, 02:32	17 foundation. 02:34
18 roaches, and ants. 02:32	18 BY THE WITNESS: 02:34
19 Do you see that? 02:32	19 A. -- I said it's possible. 02:34
20 A. Yes. 02:32	20
21 Q. Okay. Does that seem to you likely then 02:32	21 BY MR. KOPEL: 02:34
22 that they -- that they were in the same chamber given 02:32	22 Q. But you don't know one way or the other; 02:34
23 that they're reporting one number for all three of 02:32	23 right?
24 them? 02:32	24 A. I can't prove it one way or the other. 02:34
25 A. It -- it could be. It's reasonable to 02:32	25 Q. Do you know one way or the other? 02:34
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1 assume that. 02:33	1 MR. OSTOJIC: Object to form. 02:34
2 Q. Okay. And you would not have -- you 02:33	2 BY THE WITNESS: 02:34
3 would not have set up this protocol to test all three 02:33	3 A. It's possible. 02:34
4 of them in the same chamber at the same time; 02:33	4 BY MR. KOPEL: 02:34
5 correct?	5 Q. And you would not have added new pests 02:34
6 A. I would if the key question was: What's 02:33	6 during the course of the experiment; correct, if you 02:34
7 the effect of a repeller on all three pests at the 02:33	7 had written this protocol? 02:35
8 same time. 02:33	8 A. I would not have and kept the -- kept the 02:35
9 Q. Okay. Can you go back to the second page 02:33	9 experiment going. 02:35
10 where it says, "Test Object." 02:33	10 BY MR. KOPEL: 02:35
11 A. Yes. 02:33	11 Q. In some instances throughout these tests 02:35
12 Q. Okay. Do you see here it says, "This is 02:33	12 you -- we observed that even though there were no 02:35
13 to measure the efficacy of high frequency sound as a 02:33	13 pests in a chamber on a given day, there was still 02:35
14 pest management tool?" 02:33	14 consumption of food or water in that chamber on that 02:35
15 A. Yes, I see that. 02:33	15 day. Do you recall that? 02:35
16 Q. Okay. Do you understand that to be the 02:33	16 MR. OSTOJIC: Object to form. 02:35
17 objective? 02:33	17 BY THE WITNESS: 02:35
18 A. Yes. 02:33	18 A. I could see that in the table, at least 02:35
19 Q. Okay. Would you have conducted this -- 02:33	19 for -- well, what you don't know from what I can see 02:35
20 if you had conducted the this experiment, would you 02:33	20 in the table is which -- no -- water -- yes, 02:36
21 have put all three of them in the same chamber at the 02:33	21 there's -- okay. Let's take an example. I'm just -- 02:36
22 same time? 02:34	22 you know, quickly found one. 02:36
23 A. What I would have done is done each one 02:34	23 Chamber A, consumed water Day 6. 02:36
24 individually and then put them all together in every 02:34	24 1.6 milliliters and 0 pests counted in that chamber. 02:36
25 combination possible. 02:34	25 The question could be how could 02:36
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1 water be consumed if there's no pests in the chamber. 02:36	1 BY THE WITNESS: 02:54
2 And that's a good question, which is 02:36	2 A. I would not have relied on those studies 02:54
3 why I did not put weight on consumed food or consumed 02:36	3 solely to fulfill my obligation to Dow. 02:54
4 water in any of these tests, because it's -- the 02:36	4 BY MR. KOPEL: 02:54
5 measurement of such is so variable. 02:36	5 Q. Why not? 02:54
6 There's so many variables that can 02:36	6 A. Because they are -- well, for the reasons 02:54
7 creep into the measurement of water. Evaporation, 02:36	7 we pointed out. They weren't -- they could have been 02:54
8 did they use sponges, did they pick up the sponge and 02:37	8 done better. They could have been -- or else you 02:54
9 squeeze it a little more in one than the other. 02:37	9 have to have other tests that are done, replicated, 02:54
10 There's just too many ways that you 02:37	10 there's a control, the species. 02:54
11 can get bad data, so I did not use -- I did not use 02:37	11 I mean for Dow's purposes, this -- I 02:54
12 the food and water. I saw it, I considered it, and I 02:37	12 would not use these data to make a commercialization 02:54
13 decided that it would be best just to rely on the 02:37	13 decision on, but I wouldn't discount them either. 02:54
14 very easy count the insects. 02:37	14 I've said that, and I want to make 02:55
15 MR. KOPEL: Let's take a break. 02:37	15 sure you understand that. I don't throw data out. 02:55
16 THE VIDEOGRAPHER: The time is now 2:39. 02:37	16 So sole -- the -- solely, no. In 02:55
17 We're off the record. 02:37	17 combination with other things, as many other things 02:55
18 (WHEREUPON, a recess was 02:52	18 that I can find, they're part of the package. 02:55
19 had.) 02:52	19 Q. Would the totality of the data you've 02:55
20 THE VIDEOGRAPHER: The time is now 2:54 p.m. 02:52	20 seen on the effectiveness of the Bell + Howell 02:55
21 This is the beginning of Media 4. 02:52	21 repellers, would the totality of that data have been 02:55
22 We're back on the record. 02:52	22 sufficient for you to commercialize this product for 02:55
23 BY MR. KOPEL: 02:52	23 use in residences with Dow? 02:55
24 Q. Dr. Borth, earlier we -- and I apologize. 02:52	24 MR. OSTOJIC: Object to form, foundation, and 02:55
25 I've got a candy in my mouth, so let me know if I'm 02:52	25 irrelevant. 02:55
Page 178	Page 180
1 not clear. 02:52	1 But go ahead. 02:55
2 Earlier we discussed, you know, that 02:52	2 BY THE WITNESS: 02:55
3 Dow had rigorous standards when evaluating efficacy 02:52	3 A. Well, it's difficult to say because 02:55
4 of insecticides, that companies differ in terms of 02:52	4 different -- as I said before, business people are 02:55
5 the standards required. 02:52	5 involved in the decisionmaking at Dow. 02:55
6 Do you recall that? 02:53	6 If the business leaders saw the data 02:55
7 A. Yes, words to that effect. I don't know 02:53	7 and agreed that it was sufficient to back up the 02:56
8 that I used the word standards, but, yes, I recall 02:53	8 claims on the labels, they might have. 02:56
9 the conversation. 02:53	9 Q. Was it -- and, as I understood it, it was 02:56
10 Q. Okay. In the course of your work at Dow, 02:53	10 your job to make -- to make these determinations; was 02:56
11 would you have relied upon the five -- solely upon 02:53	11 it not? 02:56
12 the five studies we just examined, that is the five 02:53	12 A. That was one of many. 02:56
13 Chinese studies of the Bell + Howell repellers in 02:53	13 Q. Okay. 02:56
14 determining that a product was effective? 02:53	14 A. But my -- my opinion carried a lot of 02:56
15 You know what. Let me restate the 02:53	15 weight. 02:56
16 question, okay? 02:53	16 Q. Okay. As to your own purposes, would you 02:56
17 In the course of your work at Dow, 02:53	17 have relied on the totality of the data you've seen 02:56
18 would you have relied on the five Chinese studies 02:53	18 on Bell + Howell repellers to go forward with the 02:56
19 that we just discussed in making a determination that 02:53	19 commercialization of the product at Dow? 02:56
20 the product would be effective inside people's 02:53	20 MR. OSTOJIC: Object. Same objections as 02:56
21 residences? 02:53	21 before. 02:56
22 MR. OSTOJIC: Object to form, foundation. 02:53	22 THE WITNESS: As a Dow -- all right, I have 02:56
23 To the extent you can answer, go 02:54	23 to ask you to read it back because I think you said 02:56
24 ahead. 02:54	24 at the end as a Dow employee, so that's -- 02:56
25	25 MR. KOPEL: I believe that's what I -- 02:56
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1 THE WITNESS: -- different. Not a 02:56	1 peer-reviewed journals that were not published under 02:59
2 Bell + Howell employee, a Dow employee. 02:56	2 the auspices of ESA, the Entomological Society of 02:59
3 MR. KOPEL: I believe that's what I said, but 02:56	3 America. 02:59
4 let's -- 02:56	4 MR. KOPEL: I'll ask the court reporter to 03:00
5 THE WITNESS: Okay.	5 please mark as Exhibit 7 an Expert Disclosure in the 03:00
6 MR. KOPEL: Let's let the court reporter read 02:56	6 case of Deborah Galoski, Plaintiff, versus Stanley 03:00
7 it back, please. 02:56	7 Black & Decker, Inc., et al., Defendants. 03:00
8 (WHEREUPON, the record was 02:57	8 (Whereupon, a certain
9 read by the reporter.) 02:57	9 document was marked Borth
10 MR. OSTOJIC: Same objections. 02:57	10 Exhibit 7 for
11 BY THE WITNESS: 02:57	11 identification.) 03:00
12 A. All right. For my own purposes, what do 02:57	12 BY MR. KOPEL: 03:00
13 you mean by that? 02:57	13 Q. Dr. Borth, do you have Exhibit 7? 03:00
14 BY MR. KOPEL: 02:57	14 A. Yes. 03:00
15 Q. Sure. I mean in the course of your 02:57	15 Q. Have you seen it before? 03:00
16 professional obligations at Dow. 02:57	16 A. Yes. 03:01
17 A. Okay. 02:57	17 Q. What is it? 03:01
18 No. 02:57	18 A. Defendant's Expert Disclosure Deborah 03:01
19 Q. Can you please turn to your initial 02:57	19 Galoski, Plaintiff, v. Stanley Black & Decker, Inc., 03:01
20 report at Page 8? 02:57	20 Defendants. It's -- it's authored by me, prepared by 03:01
21 A. Okay. 02:57	21 Dr. Paul W. Borth Ento-Centric Consulting on 03:01
22 Q. I'm looking at Opinion 5 and the first 02:58	22 January 12, 2017. 03:01
23 sentence. 02:58	23 Q. Is this -- this is your expert report in 03:01
24 A. Oh, sorry. I'm on the wrong one again. 02:58	24 the Black & Decker case? 03:01
25 I pulled the rebuttal. 02:58	25 A. Yes. 03:01
Page 182	Page 184
1 Q. That's fine. Let me know when you're 02:58	1 Q. Okay. And I see here a numbered list of 03:01
2 ready. 02:58	2 references. 03:01
3 A. Page 8. 02:58	3 Do you see that? 03:01
4 Okay. Opinion 5. I see it. 02:58	4 A. Yes. 03:01
5 Q. Here it says, "It is my opinion that if a 02:58	5 Q. Okay. And this -- these references 03:01
6 scientist wishes to publish research on entomological 02:58	6 contain several peer-reviewed publications concerning 03:01
7 topics, he/she would do so in the journals of the 02:58	7 the effects of ultrasonic technology; correct? 03:02
8 most logical and preeminent scientific society where 02:58	8 A. Yes. 03:02
9 entomological research is easily published and found, 02:58	9 Q. And many of these references were not 03:02
10 those of the ESA." 02:58	10 cited in your expert reports in this case; correct? 03:02
11 A. Yes. 02:58	11 A. In the Hart-Bueno case, correct. 03:02
12 Q. "Under this opinion I conclude that there 02:58	12 Q. And, in fact, several of these studies 03:03
13 is no more recent journal publication of the effects 02:58	13 were published after the studies you cited in the 03:03
14 of ultrasound on roaches, ants, spiders -- or spiders 02:58	14 Hart-Bueno report; correct? 03:03
15 than those cited and referenced in this disclosure." 02:59	15 MR. OSTOJIC: Object to form. 03:03
16 Do you see that? 02:59	16 BY THE WITNESS: 03:03
17 A. Yes. 02:59	17 A. They could be. I'd have to look at 03:03
18 Q. Is -- now that you've -- do you still 02:59	18 each -- look at the dates. 03:03
19 contend that this statement is accurate? 02:59	19 BY MR. KOPEL: 03:03
20 A. No. Parts of it. 02:59	20 Q. Well, if we look at, for instance, No. 20 03:03
21 Q. Okay. 02:59	21 that was published in 2002; correct? 03:03
22 A. After -- you know, this was written 02:59	22 A. Yes. 03:03
23 before I saw Dr. Potter's report. 02:59	23 Q. If we look at number -- 03:04
24 Having seen Dr. Potter's report, 02:59	24 A. I think I'm wrong in answering that. 03:04
25 there are additional studies that were published in 02:59	25 You said published in 2002? 03:04
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1 Q. Yes, that's what I said. 03:04  
2 A. I do not think it was published in the 03:04  
3 peer-reviewed literature or in a journal or any 03:04  
4 publication available to the public. 03:04  
5 I believe that that was part of the 03:04  
6 confidential data that were sent to me by counsel for 03:04  
7 the defendants in that case. 03:05  
8 Q. Okay. All right. Have you -- are you 03:05  
9 familiar with all the documents you've listed in this 03:05  
10 table of references in your Black & Decker report? 03:05  
11 A. To some level, yes. 03:05  
12 Q. You've read them? 03:05  
13 A. Yes. Because it says, "The following 03:05  
14 reference materials were used in preparing this 03:05  
15 report." 03:05  
16 MR. KOPEL: Okay. You can put that -- that 03:05  
17 report to the side for now, please. 03:05  
18 I'll ask the court reporter to 03:05  
19 please mark as Exhibit 8 a study titled, "Efficacy of 03:05  
20 Ultrasound for German Cockroach and Oriental Rat 03:05  
21 Flea." 03:06  
22 (Whereupon, a certain 03:06  
23 document was marked Borth  
24 Exhibit 8 for  
25 identification.) 03:06

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1 BY MR. KOPEL: 03:06  
2 Q. Do you have Exhibit 8? 03:06  
3 A. I do. 03:06  
4 Q. Have you seen it before? 03:06  
5 A. Yes, I have. 03:06  
6 Q. What is it? 03:06  
7 A. It's an article written by Philip 03:06  
8 Koehler, Richard Patterson and J.C. Webb entitled, 03:06  
9 "Efficacy of Ultrasound for German Cockroach and 03:06  
10 Oriental Rat Flea Control," published in the 03:06  
11 Entomological Society of America's Journal of 03:06  
12 Economic Entomologic. 03:06  
13 Q. And this is a peer-reviewed publication; 03:07  
14 correct? 03:07  
15 A. Correct. 03:07  
16 Q. Can you please turn to the second page of 03:07  
17 this study? 03:07  
18 A. Page 1028. 03:07  
19 Q. That's correct, yes. 03:07  
20 Okay. So the setup in the study 03:07  
21 used a corridor. 03:07  
22 Do you see that? 03:07  
23 A. Corridor between Room 1 and Room 2, yes. 03:07  
24 Q. So there was one room with a repeller and 03:07  
25 one room without a repeller and there was a corridor 03:07

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1 in between them. Is that right or am I confused? 03:07  
2 A. And they had them in both -- it appears 03:07  
3 with the squiggly lines there that ultrasonic 03:07  
4 placement locators were in -- on a shelf in each -- 03:07  
5 in Room 1 and in Room 2 per Figure 1. 03:07  
6 Q. Right. 03:08  
7 Now, do you see Table 1 at the 03:08  
8 bottom of this page? 03:08  
9 A. Yes. 03:08  
10 Q. Okay. And Table 1 reports frequency and 03:08  
11 decibel levels of the devices tested; correct? 03:08  
12 A. Yes. 03:08  
13 Q. And several of these frequencies and 03:08  
14 decibels are within the same range as those found in 03:08  
15 the Bell + Howell devices; correct? 03:09  
16 A. I'd have to look. They might be. 03:09  
17 Q. And I'll represent to you that, according 03:09  
18 to Dr. Mankin's findings, Bell + Howell was between 03:09  
19 36 and 40 kilohertz and 88 and 99 decibels? 03:09  
20 Do you remember the question? 03:11  
21 A. No, I didn't know there was a question. 03:11  
22 Q. Oh, well, that was a waste of a couple 03:11  
23 minutes. 03:11  
24 A. I'm sorry. 03:11  
25 Q. Yes, my question is: If you're looking 03:11

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1 at Table 1, do you see that many of these devices use 03:11  
2 the same frequency and decibel levels as the 03:11  
3 Bell + Howell devices? 03:12  
4 MR. OSTOJIC: Object to form and foundation. 03:12  
5 BY THE WITNESS: 03:12  
6 A. Then you went on to talk about Mankin, 03:12  
7 and I thought that was the end of the conversation. 03:12  
8 BY MR. KOPEL: 03:12  
9 Q. Sure. Well, that's my question. 03:12  
10 A. Which is what, again? Sorry. 03:12  
11 Q. All right. Do you see, based on Table 1, 03:12  
12 that many of the devices tested used comparable 03:12  
13 frequency and decibel levels to the Bell + Howell 03:12  
14 devices, which, according to Dr. Mankin's testing, 03:12  
15 bear a frequency of 36 to 40 kilohertz and 88 to 99 03:12  
16 decibels? 03:12  
17 MR. OSTOJIC: Object to form. 03:12  
18 Go ahead. 03:12  
19 BY THE WITNESS: 03:12  
20 A. I say yes to the decibels, not 03:12  
21 remember -- recalling how far Mankin measured the 03:12  
22 decibel level, but the numbers that you represent, 88 03:13  
23 to 99, that's within the range of what Koehler 03:13  
24 reports. 03:13  
25 And as far as frequency, you're 03:13

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1 representing 36 to 40 kilohertz I believe. 03:13	1 water, and harborage (10 by 60 cm rolled cardboard) 03:16
2 Under the high frequency one, I'd 03:13	2 were placed in the corners of each room." 03:16
3 say that's within the range generally; high frequency 03:13	3 A. Yes, you're right. You're right. 03:16
4 two, with few exceptions is within the range; but low 03:13	4 Q. Okay. And -- okay. If you look at the 03:16
5 frequency is -- is not in the range. 03:13	5 right-hand column here, second paragraph, it 03:16
6 Q. Okay. And can you just take a quick 03:13	6 describes that the ultrasound device was first placed 03:16
7 look, please, on Page 1029, the first paragraph on 03:13	7 in Room 1 and then in Room 2. 03:16
8 the right side, last sentence. 03:13	8 Do you see that? 03:16
9 It -- it mentions that devices added 03:13	9 A. Yes. 03:16
10 a low-frequency sound to alert the owner that the 03:13	10 Q. Okay. So in terms of that diagram, do 03:16
11 device was operational? 03:14	11 you now understand that the placement of the repeller 03:16
12 Do you see that? 03:14	12 was only in one room at a time? 03:16
13 A. Oh, up there, yes. Yes, yes I see it. 03:14	13 A. It seems so from that. He doesn't say 03:16
14 Q. Okay. So you understand, based on that, 03:14	14 how much time, you know, was -- was -- how much time 03:16
15 the low-frequency sound was not really added for the 03:14	15 there was between the placement of the two, but it 03:16
16 purpose of repellency -- 03:14	16 appears that's to be -- yeah, to be true. 03:17
17 A. Right. 03:14	17 Q. Okay. So -- so this test was similar in 03:17
18 Q. -- rather it was -- 03:14	18 many ways to tests run -- the Chinese tests in 03:17
19 MR. OSTOJIC: Object to the form, foundation. 03:14	19 Bell + Howell repellers and run by i2L in that there 03:17
20 The document speaks for itself, and you're asking him 03:14	20 was a treatment area, an escape area, and a corridor 03:17
21 to read just the one sentence -- I guess interpret 03:14	21 in between them; correct? 03:17
22 just that singular sentence. 03:14	22 MR. OSTOJIC: Object to the form. 03:17
23 BY MR. KOPEL: 03:14	23 But go ahead. 03:17
24 Q. Okay. Did you hear my question? 03:14	24 BY THE WITNESS: 03:17
25 A. I did. 03:14	25 A. At a gross level, yes. 03:17
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1 Q. Okay. Is it your understanding, based on 03:14	1 BY MR. KOPEL: 03:17
2 that sentence, that the low-frequency portion was 03:14	2 Q. Okay. Was it -- was it improper for 03:17
3 not -- was not there for repellency purposes, but 03:14	3 Koehler to use harborage in this experiment? 03:17
4 rather that people understood the devices were 03:14	4 A. I -- 03:17
5 working? 03:14	5 MR. OSTOJIC: I would ask that then you read 03:17
6 MR. OSTOJIC: Same objection. 03:14	6 through the entire study or the document if you're 03:17
7 BY THE WITNESS: 03:14	7 going to ask him specific questions on the testing 03:18
8 A. Yes. 03:14	8 that was done allegedly in the document. 03:18
9 BY MR. KOPEL: 03:14	9 THE WITNESS: Which I'll take the time to do. 03:18
10 Q. Okay. Now, Dr. Koehler used harborage in 03:14	10 BY MR. KOPEL: 03:18
11 this test; correct? 03:14	11 Q. You're welcome to. This -- this document 03:18
12 A. I saw that word. I have not read it with 03:14	12 was cited in your rebuttal report; correct? 03:18
13 enough -- I mean I cannot describe the harborage 03:15	13 A. Yeah. 03:18
14 without probably reading more but. 03:15	14 Q. Okay. 03:18
15 Q. Well, if you look at Page 1028, I'm 03:15	15 A. For a reason that was not your question, 03:18
16 looking at the second paragraph here. 03:15	16 but... 03:18
17 A. Okay. Under German Cockroach? 03:15	17 Okay. I have read through. So 03:26
18 Q. Yep. 03:15	18 question? 03:26
19 A. I'm not seeing the word harborage in 03:15	19 Q. Okay. Thank you. 03:26
20 there, in that -- under German Cockroach in that 03:15	20 Okay. So you see that -- it's 03:26
21 first column. I may be missing it. 03:15	21 Dr. Koehler; right? 03:26
22 Q. I'm sorry. What? What's that? 03:15	22 A. Yes. 03:26
23 A. I'm not seeing the word harborage. 03:15	23 Q. Okay. You see that Dr. Koehler used 03:26
24 Q. Oh, sure. So there's a sentence that 03:15	24 harborage? 03:27
25 starts with the word "Food (Purina Rodent Chow), 03:16	25 A. Yes. 03:27
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1 Q. Was that improper? 03:27	1 want to please take them one at a time. 03:29
2 A. Not in his mind. 03:27	2 First of all, do you see any 03:29
3 Q. Was it improper in your opinion? 03:27	3 indication that there was more than one rolled to 03:29
4 MR. OSTOJIC: Object to form, foundation. 03:27	4 cardboard piece in each room? 03:30
5 Go ahead. 03:27	5 A. I thought I read that, but maybe not. I 03:30
6 BY THE WITNESS: 03:27	6 know there was at least one. You pointed that out to 03:30
7 A. For his purposes I don't believe if was 03:27	7 me. So let's -- let's stipulate that there was one. 03:30
8 improper for what he was trying to do. 03:27	8 Q. Okay. So the second you mention the size 03:30
9 Q. And what's that? 03:27	9 of the room, and I'm still failing to understand. 03:30
10 A. He was trying to determine whether the 03:27	10 How -- how does the size of the room 03:30
11 repellers repelled cockroaches -- German cockroaches. 03:27	11 affect whether or not it's appropriate to use 03:30
12 Q. So for those purposes it was okay that he 03:27	12 harborage? 03:30
13 placed harborages in the rooms? 03:27	13 A. When you're trying to determine whether a 03:30
14 A. Well, for his study design, which was 03:27	14 pest repeller repels insects, you don't need to have 03:30
15 this -- what's the area -- it's 6.7 meter by -- a 03:27	15 harborages at all. 03:30
16 much larger scale rooms I guess you would call them 03:27	16 What I read in Koehler's experiment 03:30
17 as -- for his purposes those harborages -- I mean for 03:27	17 is that he wanted to simulate or replicate, if you 03:30
18 his purpose in the larger rooms that -- different 03:28	18 will, the conditions in a, quote, normal size -- two 03:30
19 than Potter's or Intellitec, the Chinese stuff. I 03:28	19 rooms. 03:31
20 don't see that it was improper. 03:28	20 And because of the space available, 03:31
21 Q. Okay. How were his purposes different 03:28	21 the pheromones that Dr. Potter says are in those 03:31
22 than Potter's purposes? 03:28	22 harborages, are going to be spread out through the 03:31
23 MR. OSTOJIC: Object to form. 03:28	23 entire volume of the room as opposed to a small cube 03:31
24 BY THE WITNESS: 03:28	24 like Dr. Potter had. 03:31
25 A. For -- for insects Dr. Koehler was 03:28	25 Q. Have you done an analysis of the sample 03:31
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1 conducting this experiment in large rooms, in -- I 03:28	1 sizes used here versus the sample size used by 03:31
2 think he said somewhere in here that he tried to 03:28	2 Dr. Potter? 03:31
3 approximate natural conditions or normal living space 03:28	3 A. No. 03:31
4 or something to that effect. 03:28	4 Q. So it's possible that they were just as 03:31
5 Dr. Potter's insect tests were 03:28	5 concentrated with pests; isn't that correct? 03:31
6 conducted in a -- in a chamber cube basically, not 03:28	6 MR. OSTOJIC: Object to form as far as 03:31
7 the size -- certainly not the size of a room. 03:28	7 possibility. 03:31
8 BY MR. KOPEL: 03:29	8 But go ahead. 03:31
9 Q. How was the size relevant to whether or 03:29	9 BY THE WITNESS: 03:31
10 not use of harborage was appropriate? 03:29	10 A. It's possible. 03:31
11 A. Well, in particular with -- in the 03:29	11 BY MR. KOPEL: 03:31
12 smaller space that Potter used, the harborage -- one 03:29	12 Q. Now, the fact that this is a 03:31
13 harborage versus I think Koehler used -- it sounded 03:29	13 peer-reviewed article suggests that the other 03:31
14 like -- a number of them. 03:29	14 scientists reviewing this had no problem with the 03:31
15 The one harborage was the only 03:29	15 fact that Dr. Koehler used harborage in this 03:31
16 place -- I mean they were kind of concentrated 03:29	16 experiment; correct? 03:31
17 because the -- the space was not as large as what 03:29	17 MR. OSTOJIC: Object to form. Calls for 03:31
18 Koehler had. 03:29	18 speculation what other scientists may believe. 03:31
19 Koehler had large rooms and 03:29	19 THE WITNESS: Do you want to go on? 03:32
20 harborages -- again, it sounds like -- again, I don't 03:29	20 BY MR. KOPEL: 03:32
21 see a diagram of where the harborages were placed, 03:29	21 Q. I'm sorry. What's the question? 03:32
22 but they were perhaps placed throughout the room, and 03:29	22 A. The question was for my attorney. 03:32
23 that's a different -- it's a different experimental 03:29	23 THE WITNESS: Can I answer? 03:32
24 design than what Dr. Potter had. 03:29	24 MR. OSTOJIC: Oh, no, yeah, yeah, you can 03:32
25 Q. You're identifying a lot of things, and I 03:29	25 answer. 03:32
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1 THE WITNESS: Okay. Now I've lost it. 03:32	1 that. 03:35
2 MR. KOPEL: Do you remember the question? 03:32	2 Okay. So do you see here in Table 4 03:35
3 THE WITNESS: No, please repeat. 03:32	3 on Page 1029 that Dr. Koehler did not count the 03:35
4 BY MR. KOPEL: 03:32	4 cockroaches found in the corridor as being in the 03:35
5 Q. The fact that this was approved in a 03:32	5 untreated room, he counted them separately? 03:35
6 peer-reviewed publication, suggests that the other 03:32	6 Do you see that? 03:35
7 scientists who reviewed this before publication were 03:32	7 A. I do. 03:35
8 okay with the fact that Dr. Koehler used harborage in 03:32	8 Q. Okay. And -- and you were saying in your 03:35
9 this study; correct? 03:32	9 rebuttal report that it's more appropriate to count a 03:35
10 A. Correct. Under these conditions. 03:32	10 corridor as being repelled. 03:35
11 Q. Okay. And would you agree -- use of 03:32	11 Do you remember that? 03:35
12 harborage in such an experiment would more closely 03:32	12 A. Well, if you're limiting your categories 03:35
13 approximate real-world conditions where people in 03:32	13 to two, yes. There's always the possibility to add a 03:35
14 their homes do have spaces that can be used by 03:32	14 third as Dr. Koehler did, corridor or tunnel or 03:35
15 insects as harborage; correct? 03:32	15 connecting to, and that would have been even better 03:35
16 MR. OSTOJIC: Object to form. 03:33	16 in my opinion had the researchers done that. 03:35
17 Go ahead. 03:33	17 Q. So what is it that you think they did 03:35
18 BY THE WITNESS: 03:33	18 incorrectly? 03:36
19 A. If -- yes, if -- if that's the objective 03:33	19 A. I didn't say incorrect. I just said 03:36
20 of the experiment. 03:33	20 would have been more informative -- 03:36
21 BY MR. KOPEL: 03:33	21 Q. Oh, okay. 03:36
22 Q. Did you see here that Dr. Koehler found 03:33	22 A. -- if they had created a third category 03:36
23 that the presence of an upholstered chair and sofa 03:33	23 called -- like Koehler did -- corridor or connecting 03:36
24 and coffee table significantly attenuated the 03:33	24 to, number found in connecting to. 03:36
25 strength of ultrasonic signals? 03:33	25 Q. Okay. And when you say the researchers, 03:36
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1 I'm referencing Page 1028, column -- 03:33	1 are you referring to i2L? 03:36
2 of the right-hand column, the second to the last 03:33	2 A. Yes. 03:36
3 paragraph. 03:33	3 Q. Okay. Now, wouldn't it be very easy to 03:36
4 A. Well, and I was looking at his data in 03:33	4 deduce how many were in the tube if you just took 03:36
5 Table 3, which I'd have to cross-reference back to 03:33	5 them out that were in the treated portion and 03:36
6 what you said. 03:33	6 untreated portion and then you saw how many were 03:36
7 Q. Sure. 03:33	7 missing? Wouldn't you then be able to deduce how 03:36
8 A. But the comparison he makes is ultrasound 03:33	8 many were in the connecting tube? 03:36
9 between the furnished rooms and the unfurnished rooms 03:33	9 A. By arithmetic you should be able to do 03:36
10 and corridor and non-ultrasound. 03:33	10 that. 03:36
11 And as I look at those ranges 03:34	11 Q. So you have that information regardless; 03:36
12 between furnished and unfurnished, they overlap -- 03:34	12 isn't that right? 03:36
13 actually, I thought they were standard errors, and 03:34	13 A. You could find -- you could develop that 03:36
14 he's not reporting standard errors, he's just 03:34	14 information. 03:36
15 reporting the range. 03:34	15 Q. In any event, Dr. Koehler did not count 03:36
16 So 73 to 75 in the furnished, 78 to 03:34	16 the corridor as being repelled; correct? 03:36
17 81 in unfinished corridor, 71 to 74 unfurnished, 75 03:34	17 A. He treated it as a third category, 03:36
18 to 76. 03:34	18 just... 03:37
19 So, yes, it does -- the sound -- as 03:34	19 Q. So that's a yes, he did not count it as 03:37
20 he reports in Table 3, the average sound pressure 03:34	20 being repelled; correct? 03:37
21 level does decrease from unfurnished to furnished. 03:34	21 A. He didn't say as such, no. 03:37
22 Q. And were -- did you hear when 03:34	22 Q. And this is a peer-reviewed article; 03:37
23 Dr. Whitford was commenting that when it comes to 03:34	23 correct? 03:37
24 decibel levels -- I'm trying to remember how he said 03:34	24 A. Yes. 03:37
25 this. I can't remember the words he used. Scratch 03:35	25 Q. Okay. So the scientists who reviewed 03:37
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1 this article thought it was fine to not count them as 03:37	1 predominantly to untreated rooms where the sound 03:39
2 being -- to count them separate and not -- rather 03:37	2 intensity was significantly lower."
3 than counting the corridor cockroaches as being 03:37	3 Do you see that? Sorry. I'll say
4 repelled; correct? 03:37	4 it again. 03:40
5 MR. OSTOJIC: Object. The document speaks 03:37	5 Dr. Koehler concludes that "The 03:40
6 for itself, may call for speculation as to what the 03:37	6 cockroaches did not move predominantly to untreated 03:40
7 authors thought, but go ahead. 03:37	7 rooms where the sound intensity was significantly 03:40
8 BY THE WITNESS: 03:37	8 lower." 03:40
9 A. For this study, those that reviewed it 03:37	9 Do you see that? 03:40
10 must have agreed with it. 03:37	10 A. I see that. Not under conclusion, but 03:40
11 There were other studies where the 03:37	11 under results. 03:40
12 researchers -- and I would have to look for them if 03:37	12 Q. Do you think that it was unacceptable for 03:40
13 you're going to ask me which ones, but I seem to 03:37	13 Dr. Potter to rely upon the study in concluding that 03:40
14 remember other studies that did not have the third 03:37	14 the Bell + Howell ultrasonic repellers would be 03:40
15 category called corridor, but included -- if they 03:37	15 ineffective as to cockroaches? 03:40
16 were not in the -- if they were not in the repeller 03:37	16 A. Yes. 03:40
17 chamber, then they were by definition not repelled. 03:37	17 Q. Why? 03:40
18 So I think it depends on -- on the 03:38	18 A. Because the Bell + Howell repellers were 03:40
19 person doing the research. 03:38	19 not in this study. 03:40
20 And in this case Koehler chose to do 03:38	20 Q. Even though this study examined devices 03:40
21 it this way, and I -- given enough time, I could find 03:38	21 with comparable frequencies? 03:40
22 those documents -- those other researchers I'm 03:38	22 A. Comparable frequencies, comparable 03:40
23 talking about which were peer-reviewed article, and 03:38	23 decibels, but not the unit itself. 03:40
24 they didn't -- did not have the third category called 03:38	24 Q. Now, when -- when you were evaluating 03:40
25 corridor. 03:38	25 products in the course of your tenure at Dow, did you 03:40
Page 202	Page 204
1 BY MR. KOPEL: 03:38	1 ever look at studies that were geared towards 03:41
2 Q. And do you know if they counted them as 03:38	2 comparable products or active ingredients in 03:41
3 being repelled, or that they discounted the corridor 03:38	3 products? 03:41
4 all together? 03:38	4 A. I looked at everything I could, yes. 03:41
5 A. I can't recall. 03:38	5 Q. Was that inappropriate for you to do? 03:41
6 Q. So do you have a specific memory of any 03:38	6 A. No, it's part of the total package. 03:41
7 peer-reviewed publication that ever counted the 03:38	7 Q. Okay. So is it inappropriate for 03:41
8 corridor connecting tube as being repelled. 03:38	8 Dr. Potter to consider this in this context? 03:41
9 A. I cannot recall without looking through 03:38	9 MR. OSTOJIC: Object. Asked and answered. 03:41
10 all the references that we've discussed today. 03:38	10 Also form. 03:41
11 Q. You haven't cited any in your report 03:38	11 BY THE WITNESS: 03:41
12 though; right? 03:38	12 A. I don't know -- you know, I can't speak 03:41
13 A. No, I didn't go that far. 03:38	13 for Dr. Potter, but as a -- as a scientist I think it 03:41
14 Q. Given that this approach passed muster in 03:38	14 behooves you to look at everything you can, and this 03:41
15 a peer-reviewed publication, would -- would you agree 03:39	15 is one piece of -- of data. It's a data point. 03:41
16 that the methodology of not counting the pests in a 03:39	16 BY MR. KOPEL: 03:41
17 corridor as being repelled is a methodologically 03:39	17 Q. So -- and Dr. Potter didn't rely on the 03:41
18 acceptable approach as a matter of science? 03:39	18 single study; right, he relied on several pieces of 03:41
19 MR. OSTOJIC: Object to form and foundation. 03:39	19 data; correct? 03:41
20 BY THE WITNESS: 03:39	20 A. I don't know. 03:41
21 A. It's one example. It was accepted, yeah. 03:39	21 MR. OSTOJIC: Objection. Calls for 03:41
22 BY MR. KOPEL: 03:39	22 speculation. 03:41
23 Q. Now -- now, if you look at Page 1030, 03:39	23 BY MR. KOPEL: 03:41
24 please. In the second paragraph Dr. Koehler says -- 03:39	24 Q. Well, you read -- you read Dr. Potter's 03:41
25 finds that "The cockroaches did not move 03:39	25 report; right? 03:41
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1 A. He cites other studies, yes. 03:41	1 make that assessment; but to the extent you can 03:43
2 Q. And he also -- and he's also relying on 03:41	2 answer, go ahead. 03:43
3 the i2L study and the CR Research studies; correct? 03:41	3 BY THE WITNESS: 03:43
4 MR. OSTOJIC: Same objection. 03:41	4 A. That's what I was going to say. 03:43
5 BY THE WITNESS: 03:42	5 MR. KOPEL: Yeah, I'm going to ask counsel to 03:43
6 A. Yeah, I -- I think the word rely may be a 03:42	6 please stop telling the witness what to say because 03:43
7 legal term that's a little -- I mean what's the 03:42	7 that's inappropriate. 03:43
8 weight of evidence you put on each one, I don't know. 03:42	8 BY MR. KOPEL: 03:43
9 He didn't rely solely on any one. 03:42	9 Q. But -- so can you -- are you -- here's a 03:43
10 He -- he relied on -- in his -- you know, his own 03:42	10 follow-up question. 03:43
11 studies, just like I am relying on the totality of 03:42	11 MR. OSTOJIC: I'm not really. Honestly, I'm 03:43
12 everything that I looked at. 03:42	12 not trying to coach him. I'm really making legal 03:44
13 BY MR. KOPEL: 03:42	13 objection. 03:44
14 Q. Okay. So given that -- was it 03:42	14 MR. KOPEL: That doesn't sound like a legal 03:44
15 inappropriate for Dr. Potter to rely in part on this 03:42	15 objection to me. 03:44
16 study in making his determination that his opinion is 03:42	16 MR. OSTOJIC: But if you're asking -- if 03:44
17 that Bell + Howell ultrasonic pest repellers are 03:42	17 you're asking a witness to evaluate characteristics 03:44
18 infective as to cockroaches? 03:42	18 but provide none of the characteristics, it calls for 03:44
19 MR. OSTOJIC: Objection. Asked and answered. 03:42	19 speculation. It's difficult. 03:44
20 But you can answer it again. 03:42	20 BY MR. KOPEL: 03:44
21 BY THE WITNESS: 03:42	21 Q. Can you identify any differences between 03:44
22 A. It would be -- I forget the word you 03:42	22 the physical properties of the sound emitted from 03:44
23 used -- 03:42	23 these devices versus the physical properties of the 03:44
24 MR. OSTOJIC: Inappropriate. 03:42	24 sound emitted from the Bell + Howell ultrasonic pest 03:44
25	25 repellers? 03:44
Page 206	Page 208
1 BY THE WITNESS: 03:42	1 MR. OSTOJIC: Same objections. 03:44
2 A. -- inappropriate because the 03:42	2 BY THE WITNESS: 03:44
3 Bell + Howell units were not in this list of nine. 03:42	3 A. I have to go to their -- their label for 03:44
4 It's additional data, and some of 03:42	4 the table. Table 1, Characteristics of Commercial 03:44
5 the frequencies and the decibels overlap, so it's all 03:42	5 Ultrasonic Units. 03:44
6 interesting, but -- but without testing the actual 03:42	6 They provide decibel, kilohertz, and 03:44
7 device that is being claimed -- is at issue, it's 03:43	7 waveform and period information. They do not talk 03:44
8 really stretching it. 03:43	8 about the number of speakers. They do not talk about 03:44
9 BY MR. KOPEL: 03:43	9 the size of the speakers, the attitude of the 03:44
10 Q. Now, you're not an expert on the physics 03:43	10 speakers, the case design, how big the speaker 03:44
11 of ultrasonic sound; correct? 03:43	11 opening is. 03:44
12 A. Correct. 03:43	12 All of those things -- simply the 03:44
13 MR. OSTOJIC: Objection. Asked and answered. 03:43	13 manufacturer, the basic manufacturer is not 03:45
14 BY MR. KOPEL: 03:43	14 Bell + Howell. 03:45
15 Q. Can you please explain to me how the 03:43	15 So it -- it's -- again, I forget -- 03:45
16 physical properties of the -- the multiple devices 03:43	16 I forget your question, but it -- I would not use 03:45
17 used in -- let me rephrase the question. 03:43	17 this data to extrapolate to Bell + Howell. It's 03:45
18 Can you please explain to me how the 03:43	18 additional data, certainly. 03:45
19 physical properties of the sound emitted by the 03:43	19 BY MR. KOPEL: 03:45
20 devices examined in this report differ from the 03:43	20 Q. Now, everything you just -- all those 03:45
21 physical properties of the sound emitted from the 03:43	21 factors you just identified are physical properties 03:45
22 Bell + Howell ultrasonic pest repellers? 03:43	22 of the device itself; correct? 03:45
23 MR. OSTOJIC: Object to form, foundation, 03:43	23 A. Physical, yeah, structural-type things. 03:45
24 also facts not in evidence. He has an article, not 03:43	24 Q. What physical differences do those make 03:45
25 the entirety of all the information he would need, to 03:43	25 to the actually ultrasonic sound waves that are 03:45
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1 emitted from the device? 03:45	1 the -- you know, to block the sound. 03:48
2 A. Well, if you -- if you have a -- a 03:45	2 Q. Okay. Now I want to get back to the 03:48
3 speaker output hole that is one centimeter in 03:45	3 question I actually asked, which is: Do you have a 03:49
4 diameter versus one that's three centimeters in 03:45	4 reason to dispute Dr. Koehler's conclusion here at 03:49
5 diameter, it would seem logical to me that there 03:45	5 the end of the study, that the physics of ultrasound 03:49
6 would be less sound coming out of that smaller hole. 03:45	6 limits its potential efficacy in normal residences 03:49
7 Q. Okay. And -- let's finish up with this 03:45	7 and commercial establishments? 03:49
8 first. 03:46	8 A. Under the conditions that he tested those 03:49
9 Now, just above that on Page 1030 03:46	9 nine units that is I think a valid conclusion from 03:49
10 Dr. Koehler says, "Since most inhabited areas of 03:46	10 his specific design and setup. 03:49
11 buildings where household pests are prevalent, have 03:46	11 Q. And -- and to be clear -- okay. Thank 03:49
12 furniture, the attenuation of sound by placement of 03:46	12 you. 03:49
13 furniture indicates that thorough treatment with high 03:46	13 MR. KOPEL: Okay. I'll ask the court 03:50
14 SPL is most probably impossible with current 03:46	14 reporter to please mark as -- the deposition 03:50
15 available technology." 03:46	15 transcript of Paul W. Borth in Golaski v. Applica 03:50
16 Do you see that? 03:46	16 Consumer Products as Exhibit 9. 03:50
17 A. Well, you didn't -- when you started you 03:46	17 (Whereupon, a certain 03:51
18 said just above that, but I had forgotten where we 03:46	18 document was marked Borth 03:51
19 were, so are you on the -- I do see a sentence 03:47	19 Exhibit 9 for 03:51
20 starting, "Since most inhabited areas." 03:47	20 identification.) 03:51
21 Is that what you just read? I 03:47	21 BY MR. KOPEL: 03:51
22 shouldn't ask you questions. 03:47	22 Q. Dr. Borth, do you have Exhibit 9? 03:51
23 Q. No, no, no. That's totally fine. You 03:47	23 A. Yes. 03:51
24 know what. I'm actually going to -- I'm going to 03:47	24 Q. Have you seen it before? 03:51
25 move on from that question. 03:47	25 A. I have. 03:51
Page 210	Page 212
1 Can you please look at the very end 03:47	1 Q. What is it? 03:51
2 of this report here, the last sentence which reads: 03:47	2 A. It's a transcript of the deposition that 03:51
3 "Although manufacturers claim that ultrasound can 03:47	3 I gave in connection with the Galoski versus Applica 03:51
4 penetrate voids to control pests, the presence of 03:47	4 Consumer Products case. 03:51
5 furniture in a room significantly decrease the 03:47	5 Q. Now, I know that you don't have time to 03:51
6 intensity of ultrasound. Therefore, the physics of 03:47	6 read through this whole thing, but just -- as sitting 03:51
7 ultrasound limits its potential efficacy in normal 03:47	7 here right now, without having to review this whole 03:51
8 residences and commercial establishments." 03:48	8 thing, is there anything that comes to mind that -- 03:51
9 Do you see that? 03:48	9 that you said here that you recall to be incorrect or 03:51
10 A. I see that. 03:48	10 that you would change your testimony on? 03:51
11 Q. Okay. Do you have any reason to disagree 03:48	11 MR. OSTOJIC: Object to form. 03:51
12 with that? 03:48	12 BY MR. KOPEL: 03:51
13 MR. OSTOJIC: Object to form. 03:48	13 Q. With -- given the caveat that you have 03:51
14 BY THE WITNESS: 03:48	14 not reviewed the whole thing right now? 03:51
15 A. Well, as it relates to this case, it's -- 03:48	15 MR. OSTOJIC: Object to form, foundation. 03:51
16 it's not relevant. 03:48	16 BY THE WITNESS: 03:52
17 BY MR. KOPEL: 03:48	17 A. Well, I guess I have to ask a legal 03:52
18 Q. Why not? 03:48	18 question or opinion. 03:52
19 A. Because Bell + Howell did not claim that 03:48	19 The counsel that I -- I say reported 03:52
20 ultrasound can penetrate voids to control pests. 03:48	20 to or that I was working with on this case told me at 03:52
21 Q. Okay. How about the second part of that 03:48	21 the end of the case that this case was to be kept 03:52
22 sentence? 03:48	22 confidential, so I have refrained from saying 03:52
23 A. Again, I would like to review the label 03:48	23 anything about this particular case under that 03:52
24 to refresh my memory, but I'm pretty sure it says 03:48	24 direction. 03:52
25 don't put the repeller behind furniture or block 03:48	25
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1 BY MR. KOPEL:	03:52	1 question pending, but obviously...	03:54
2 Q. Okay. And I'm going to represent to you	03:52	2 MR. KOPEL: Okay. That's fine.	03:54
3 that this deposition transcript is public record. I	03:52	3 THE VIDEOGRAPHER: The time is 3:56.	03:54
4 took this off of the court's docket, so this is not a	03:52	4 We're off the record.	03:54
5 confidential document.	03:52	5 (WHEREUPON, a recess was	04:19
6 A. Okay. Can I ask my attorney?	03:52	6 had.)	04:22
7 MR. KOPEL: Go ahead.	03:52	7 THE VIDEOGRAPHER: The time is now 4:24.	04:22
8 MR. OSTOJIC: I don't know anything about	03:52	8 We're back on the record.	04:22
9 that case. It really would I guess depend upon how	03:52	9 BY MR. KOPEL:	04:22
10 the parties in that case resolved that case with	03:53	10 Q. So, Dr. Borth, you've got Exhibit 9 in	04:22
11 respect to the confidentiality and whether this	03:53	11 front of you; correct?	04:22
12 deposition would fall under that clause.	03:53	12 A. I do, yes.	04:22
13 BY MR. KOPEL:	03:53	13 Q. Okay. Can you -- can you please turn to	04:22
14 Q. Well, were you a party to any settlement	03:53	14 Page 142.	04:22
15 agreement in that case?	03:53	15 A. Okay.	04:22
16 A. No.	03:53	16 Q. Okay. And I'm -- I'm looking beginning	04:22
17 MR. KOPEL: I don't see how that could be	03:53	17 on Line 20 of Page 142.	04:23
18 binding.	03:53	18 A. Uh-huh. Go ahead.	04:23
19 MR. OSTOJIC: I don't know. You know	03:53	19 Q. The question reads: "So it's your	04:23
20 settlement agreements with confidentiality includes	03:53	20 opinion -- just so I am clear -- that once you test a	04:23
21 not just parties but experts and everything, so I'm	03:53	21 device that emits ultrasonic waves, if you have a	04:23
22 not -- I was not involved, our firm was not involved	03:53	22 similar device that emits frequency peak kilohertz	04:23
23 in this Black & Decker case. I don't know of any	03:53	23 with a similar voltage magnitude, you wouldn't	04:23
24 agreement of confidentiality, so I can't comment.	03:53	24 necessarily need to test that specific device, you	04:23
25 MR. KOPEL: I'd like to examine --	03:53	25 could imply the results from the test of the original	04:23
Page 214		Page 216	
1 MR. OSTOJIC: I can tell you having other	03:53	1 device."	04:23
2 cases with confidentiality agreements, it does go to	03:53	2 Answer, "You could infer that within	04:23
3 experts, agents, it goes to attorneys, law firms, as	03:53	3 reason I'd say."	04:23
4 well as the parties of the case.	03:53	4 Now, was this your testimony?	04:23
5 MR. KOPEL: I'd like to examine the witness	03:53	5 A. Yes.	04:23
6 on this deposition transcript.	03:53	6 Q. Okay. And when -- and when we talk about	04:23
7 Is it your intention to instruct him	03:53	7 voltage magnitude, that's directly related to decibel	04:23
8 not to answer those questions?	03:53	8 level; correct?	04:23
9 MR. OSTOJIC: It is not my intention. It's	03:53	9 A. Yes.	04:23
10 really I suppose up to him.	03:53	10 Q. Okay. Do you still believe this to be	04:23
11 Although I would then -- I'm not	03:54	11 true?	04:23
12 sure if the court reporter can mark for us from the	03:54	12 MR. OSTOJIC: Object to form, foundation.	04:23
13 beginning of the questioning on this exhibit to the	03:54	13 BY THE WITNESS:	04:23
14 end because it may need to be redacted or -- if the	03:54	14 A. Are you asking if I would answer the same	04:23
15 people of the parties in that other case come in	03:54	15 way?	04:24
16 later and find that it was part of the	03:54	16 BY MR. KOPEL:	04:24
17 confidentiality agreement.	03:54	17 Q. Yes.	04:24
18 MR. KOPEL: Okay. So at that point --	03:54	18 A. I would elaborate; but, yes, the core of	04:24
19 MR. OSTOJIC: I don't know though. I mean	03:54	19 the -- the core of the answer would be the same.	04:24
20 it --	03:54	20 Inferences are never as reliable I	04:24
21 MR. KOPEL: At that point I'll -- you know,	03:54	21 guess you'd say as having correct data, but.	04:24
22 counsel can take a look, and if you make --	03:54	22 Q. Do you recall there was a correlation	04:24
23 MR. OSTOJIC: You know let me make a	03:54	23 report that you used in this case? And when I say	04:24
24 suggestion. Let's break now for just a few minutes.	03:54	24 "this case," I'm referring to Black & Decker?	04:24
25 Let me talk to you. There's not a	03:54	25 A. I don't recall -- I don't recall	04:24
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1 preparing one, there may have been one from -- that 04:24	1 inferences and correlations, and it's not as good as 04:26
2 was provided as exhibits or whatever they -- 04:24	2 having the actual device that's at issue. 04:26
3 appendices or something. 04:24	3 Q. Did you say that at your deposition in 04:27
4 Q. Can you please take a look at Line 20 on 04:24	4 the Black & Decker case? 04:27
5 Page 143? 04:24	5 A. I don't know. 04:27
6 A. 143. 04:24	6 Q. Does your testimony today seem consistent 04:27
7 Okay. 04:25	7 to you with your testimony in the Black & Decker 04:27
8 Q. Question, "So would you know whether the 04:25	8 case? 04:27
9 shape of a speaker would affect the way in which 04:25	9 A. I think I'm -- I'm -- I've got more data 04:27
10 ultrasonic waves are emitted from that speaker?" 04:25	10 than I did then, more time has passed; and, as I 04:27
11 Answer, "I would not." 04:25	11 said, the core of what I said then, I don't disagree 04:27
12 Question, "You wouldn't know, for 04:25	12 with. I could add to it. I would -- I did. I add 04:27
13 instance, if the speaker is shaped differently it 04:25	13 to it today. 04:27
14 might create a larger area that's touched by 04:25	14 Q. But you didn't in that case; right? 04:27
15 ultrasonic waves?" 04:25	15 MR. OSTOJIC: Object to form, foundation. 04:27
16 Question [sic], "I would not know." 04:25	16 I don't know if you can -- the 04:27
17 Question, "Or, consequently, a 04:25	17 deposition speaks for itself. 04:27
18 smaller area that's actually affected by the 04:25	18 But go ahead. 04:27
19 ultrasonic waves?" 04:25	19 BY THE WITNESS: 04:27
20 Answer, "That would be pure 04:25	20 A. I only can read what you read, and I did 04:27
21 speculation." 04:25	21 not add in -- you know, the speaker shape that they 04:27
22 And now I'm going to actually 04:25	22 were talking -- is being talked about here, I didn't 04:27
23 skip -- you're welcome to read, but in terms of line 04:25	23 test that; but it makes sense to me that it might 04:27
24 numeration, I'm going to skip to Line 14 here. 04:25	24 affect, and that's why I used the word speculate. 04:27
25 Question, "So you wouldn't know 04:25	25
Page 218	Page 220
1 whether the shape of a given device or a difference 04:25	1 BY MR. KOPEL: 04:27
2 in the manufacturing process would affect the actual 04:25	2 Q. Okay. But you also said here that "As 04:27
3 efficacy of that device in repelling the pest as 04:25	3 long as an unknown model would prove that the 04:28
4 represented to consumers"; would you? 04:25	4 frequency peak is the same as the reference, I would 04:28
5 And then there's some discussion by 04:25	5 expect the results in a biological test to be not 04:28
6 the attorneys. 04:25	6 significantly different." 04:28
7 Answer, "I'm going to tell you -- 04:25	7 Do you see that? 04:28
8 I'll give you my answer; and if it doesn't meet your 04:25	8 A. I said that. 04:28
9 needs, you've got to reask it. The variable that's 04:25	9 MR. OSTOJIC: Objection. Asked and answered. 04:28
10 of important here is the frequency output or the 04:25	10 BY MR. KOPEL: 04:28
11 frequency peak. That is -- that is what has been 04:26	11 Q. Okay. And do you agree with that still? 04:28
12 measured and correlated. And so long as an unknown 04:26	12 A. I did say that. 04:28
13 model would prove that the frequency peak is the same 04:26	13 Q. Do you agree with that still? 04:28
14 as the reference, I would expect the results in a 04:26	14 MR. OSTOJIC: Objection. Asked and answered. 04:28
15 biological test to be not significantly different." 04:26	15 But go ahead. 04:28
16 Was that your testimony? 04:26	16 BY THE WITNESS: 04:28
17 A. Yes. 04:26	17 A. I could say that after a year or whatever 04:28
18 Q. Do you still agree with that? 04:26	18 I'm smarter now than I was before, and while the 04:28
19 A. I -- I would say the same thing. 04:26	19 basis -- basics are the same, I think I would -- I 04:28
20 Speculation. I've never tested these things. You 04:26	20 would have to qualify it today. 04:28
21 know I'm not an expert in physics, so I today would 04:26	21 BY MR. KOPEL: 04:28
22 say it's common sense -- or at least it could be -- 04:26	22 Q. Can you please take a look at Page 148, 04:28
23 it might be different. You just don't know. 04:26	23 beginning on Line 7. 04:28
24 If you don't have the exact device, 04:26	24 Please let me know when you have it. 04:28
25 that is at issue, then you're going back to 04:26	25 A. What page was it? 04:28
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1 Q. Page 148 beginning on Line 7. 04:28	1 most impact on the results. 04:30
2 A. Okay. I have it. 04:28	2 There could be a list of others that 04:31
3 Q. Question, "So you don't know whether they 04:29	3 affect it, maybe not any one significantly in and of 04:31
4 would actually be effective in repelling a given pest 04:29	4 itself; but you put them all together, and they might 04:31
5 or insect based on this change in shape or size; 04:29	5 have -- they might make a difference. 04:31
6 isn't that true?" 04:29	6 Q. Did you do that in the Black & Decker 04:31
7 Answer, "I did not do the testing; 04:29	7 case? 04:31
8 but, again, I go back to the variable at interest. 04:29	8 A. No, I did not. 04:31
9 Is the frequency peak matched to the working 04:29	9 Q. Why not? 04:31
10 frequency output. So if those are similar, in my 04:29	10 A. It wasn't part of the responsibility that 04:31
11 opinion, the efficacy results would be the same." 04:29	11 was given to me. 04:31
12 Do you see that? 04:29	12 Q. Do you think you should have? 04:31
13 A. I do. 04:29	13 A. No, they -- I'm not a physics expert. I 04:31
14 Q. Was that your testimony? 04:29	14 wouldn't know how to -- I wouldn't -- I don't have 04:31
15 A. Was it my testimony? 04:29	15 the testing equipment. I don't think they would want 04:31
16 Yes. 04:29	16 me to. 04:31
17 Q. Do you still agree with that? 04:29	17 Q. Okay. And in the Black & Decker case did 04:31
18 A. As it says in my report, the art -- the 04:29	18 you make determinations on the efficacy of certain 04:31
19 variables of most interest, in my opinion, are the 04:29	19 devices based on testing performed on other devices? 04:31
20 frequency and the decibels. 04:29	20 A. I may have. You'd have to point me to it 04:31
21 There could be other things that 04:29	21 or else I'll read the whole thing. 04:31
22 affect the efficacy of the product. 04:29	22 Q. Well, please take a look at your expert 04:32
23 Q. So -- 04:29	23 report in that case. 04:32
24 A. I don't think that those other things 04:29	24 A. In that case? 04:32
25 supersede the importance of these two. 04:29	25 Q. Sure. 04:32
Page 222	Page 224
1 Q. And here when you were asked about 04:29	1 A. What number? 04:32
2 speaker shape and size, your answer is that as long 04:30	2 Q. You got it? 04:32
3 as the frequency peak matched to the working 04:30	3 A. No, I've got No. 2, Exhibit 2? No. 04:32
4 frequency output, the results would be the same. 04:30	4 Q. It's Exhibit 7. 04:32
5 Do you see that? 04:30	5 A. I'm not seeing it. 04:32
6 A. Yes. 04:30	6 Q. The document starts with Exhibit 1. 04:32
7 Q. Okay. And, specifically that, do you 04:30	7 A. Oh. Got it. Got it. 04:32
8 still hold that opinion? 04:30	8 Q. Okay. Please take a look at Page 9. 04:32
9 MR. OSTOJIC: Objection. Asked and answered. 04:30	9 There's an Opinion section, and I'll direct you to 04:33
10 Two times. 04:30	10 your Opinions 1 and 2, which also cross-reference 04:33
11 BY THE WITNESS: 04:30	11 your Findings 4 and 7. 04:33
12 A. Yes. 04:30	12 A. Yes. I mean I know there wasn't a 04:33
13 BY MR. KOPEL: 04:30	13 question, but I've read 1 and 2. 04:33
14 Q. So you believe that to be true regardless 04:30	14 Q. You've read them. Okay. 04:33
15 of speaker, shape, and size? 04:30	15 So in that case you have based -- 04:33
16 MR. OSTOJIC: Objection. Asked and answered. 04:30	16 you based a finding of efficacy for an ultrasonic 04:33
17 BY THE WITNESS: 04:30	17 pest repeller based on testing conducted on a 04:33
18 A. Go on. 04:30	18 different ultrasonic pest repeller; correct? 04:33
19 MR. OSTOJIC: Three times. 04:30	19 MR. OSTOJIC: Object to form, foundation. 04:33
20 Go ahead. 04:30	20 The document speaks for itself. 04:33
21 BY THE WITNESS: 04:30	21 But go ahead. 04:34
22 A. If there's a -- okay. The way I would 04:30	22 BY THE WITNESS: 04:34
23 answer your question definitively is to do a multiple 04:30	23 A. The answer is yes. 04:34
24 regression test of all the variables. Frequency, 04:30	24 BY MR. KOPEL: 04:34
25 decibels are probably the top two that would have the 04:30	25 Q. Do you think that your testimony in this 04:34
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1 case is consistent with your testimony in that case 04:34	1 MR. OSTOJIC: All right. No. 4. 04:36
2 in that in this case you've criticized Dr. Potter for 04:34	2 BY MR. KOPEL: 04:36
3 doing exactly what you did in the Black & Decker 04:34	3 Q. So it seems here that there was testing 04:36
4 case? 04:34	4 done on a Weitech-branded device; correct? 04:36
5 MR. OSTOJIC: Objection. Mischaracterizes 04:34	5 A. It's been over a year, but that's what I 04:36
6 his testimony, actions; as well as form, foundation. 04:34	6 would -- yes. 04:36
7 But go ahead. 04:34	7 Q. And you were rendering an opinion on an 04:36
8 BY THE WITNESS: 04:34	8 Applica-branded device; correct? 04:37
9 A. Which is what? 04:34	9 A. I was rendering an opinion on 04:37
10 BY MR. KOPEL: 04:34	10 Black & Decker Applica, yes. 04:37
11 Q. Which is rely on testing of other 04:34	11 Q. Okay. So those -- those are different 04:37
12 ultrasonic devices in making a finding of -- 04:34	12 devices; right? 04:37
13 regarding efficacy of another device. 04:34	13 A. I really can't recall from a year ago 04:37
14 MR. OSTOJIC: Same objections. 04:34	14 what the details of this case were. 04:37
15 BY THE WITNESS: 04:34	15 And I cannot recall the relationship 04:37
16 A. As I recall, that case -- the devices 04:34	16 between Stanley Black & Decker and Applica, and I 04:37
17 that were at issue were all manufactured by Applica 04:34	17 don't -- 04:37
18 or Black & Decker, and -- and -- I don't know what 04:35	18 Q. Well, you mean between Weitech and 04:37
19 your question is. 04:35	19 Black & Decker? 04:37
20 BY MR. KOPEL: 04:35	20 A. Well, either one. 04:37
21 Q. Sure. Well -- 04:35	21 Q. How -- how is that -- how is the 04:37
22 A. I may need it again. 04:35	22 relationship relevant? 04:37
23 Q. Okay. If you look at your Finding No. 4, 04:35	23 A. Well, because the way you asked the 04:37
24 it appears that you've used a correlation report? 04:35	24 question. 04:37
25 A. Yes, it wasn't -- it was not developed by 04:35	25 Q. Well, what is the relevance of the 04:37
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1 me. I believe it was developed by -- I mean I was 04:35	1 relationship to one another? I mean did you examine 04:37
2 handed -- it was part of the documentation that was 04:35	2 whether or not the devices had the same number of 04:37
3 given to me. 04:35	3 speakers? 04:38
4 Q. Okay. And you've used this correlation 04:35	4 A. I looked at the product spec sheet as 04:38
5 report to determine that different models of 04:35	5 this Finding No. 4 says, and I enumerated -- restated 04:38
6 ultrasonic pest repellers have similar electrical 04:35	6 what I saw in the product spec sheet and then 04:38
7 magnitude and frequency peak. 04:35	7 testified I guess you could say that there was a 04:38
8 Do you see that? 04:35	8 correlation report that went along with it. 04:38
9 MR. OSTOJIC: I'm sorry -- object. 04:35	9 Whether it was Applica that produced 04:38
10 BY THE WITNESS: 04:35	10 it or Black & Decker that produced it or Weitech, I 04:38
11 A. No. 04:35	11 cannot remember. 04:38
12 MR. OSTOJIC: Where you looking at? 04:35	12 MR. KOPEL: You can put that to the side, 04:38
13 MR. KOPEL: Finding No. 4. 04:36	13 please. 04:38
14 THE WITNESS: Can I ask for a page number? 04:36	14 I'll ask the court reporter to 04:39
15 MR. KOPEL: Page 6. 04:36	15 please mark as Exhibit 10 a document titled, 04:39
16 MR. OSTOJIC: Page 6. 04:36	16 "Laboratory and Field Trials with Commercial 04:39
17 MR. KOPEL: Yes. 04:36	17 Ultrasonic Devices Against Three Ant Species." 04:39
18 MR. OSTOJIC: Not opinion -- 04:36	18 (Whereupon, a certain 04:40
19 MR. KOPEL: Yeah, sure. That's -- this -- 04:36	19 document was marked Borth 04:40
20 this was cross-referenced in your Opinion 1. 04:36	20 Exhibit 10 for 04:40
21 THE WITNESS: I have 4. 04:36	21 identification.) 04:40
22 Okay. I've read it. What -- 04:36	22 BY MR. KOPEL: 04:40
23 MR. OSTOJIC: Let me see what page you're 04:36	23 Q. Dr. Borth, do you have Exhibit 10? 04:40
24 looking on. 04:36	24 A. I do. 04:40
25 THE WITNESS: 6. 04:36	25 Q. Have you seen it before? 04:40
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